Redvision™

X-SERIES

USER MANUAL

Products Covered:

RV X-SERIES™ PTZ Positioning Camera
RVX-PSU Power Supply
RVX-PSU-ALM16 Power Supply with Alarm Module
RVX-PSU-ALM16-W PSU with Wireless PIR module

[RVX V9.2.7]

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1 INSTALLING THE CAMERA HEAD

1.1 CONVERT DOME TO BALL PTZ CONFIGURATION

The RVX Series can be mounted as a dome or ball PTZ configuration. To convert the dome to ball PTZ remove the M4 button head screws with 2.5mm allen key provided. See FIG A below.

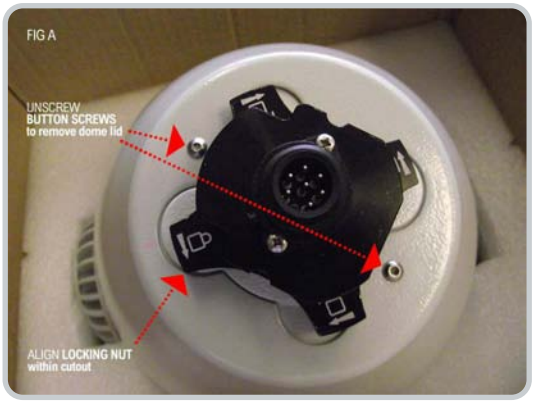


FIG B MOUNTING ORIENTATION

OBSERVE THE FOLLOWING PRECAUTIONS WHEN INSTALLING:

1. Mount the Camera in a position where it cannot be be interfered with either intentionally or accidentally.
2. The mounting surface should be capable of supporting the weight of both the Camera and mounting brackets under all expected conditions of load, vibration and temperature.
3. The mounting brackets should be fitted in accordance with instructions and should observe all appropriate safety precautions & local building regulations.
4. Ensure the Camera is in the correct orientation, see FIG B above.

1.2 ATTACHING CAMERA TO BRACKET

BRACKET INSTALLATION:

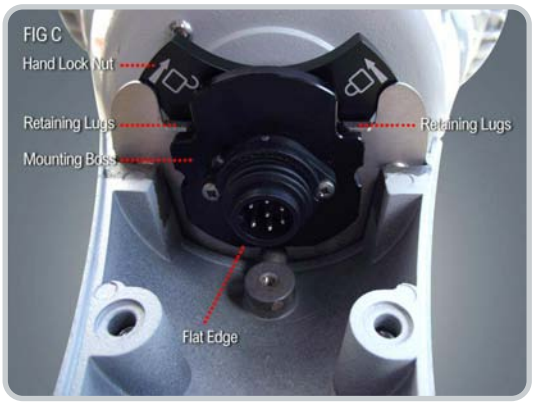
Fixings to the various bracket types will depend on the fixing surface. It is important to use adequate quality fixings to safely support the complete Dome/Ball PTZ assembly. Fixing slots on a 4" PCD provide adequate clearance for 6mm bolts if attaching the Pedestal or Swan Mount to the mast.

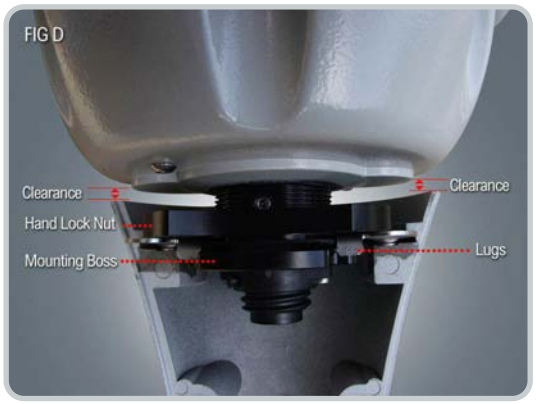
FLYING LEAD:

If using a Swan/Pedestal/Pendant Mount, install the Fly Lead optionally through the Central Mounting Tube or via a 20mm Gland Entry Point. The Gland Entry is supplied with a 20 x 1mm thread to accomodate industry standard 20mm Glands.

ATTACHING CAMERA TO THE BRACKET: See Fig C & D below

1. Remove Mount Cover Plate.
2. Fully unscrew Hand Lock Nut.
3. Offer Camera to Bracket. The Mounting Boss orientation is important and should match the picture in FIG C & D below. i.e The Flat Edge should be positioned to the rear and the Retaining Lugs engaged in the Boss Cut Outs.
4. If RV-PED (Pedestal) is being used support the Camera with hand when tightening the Hand Lock Nut - ensure the Hand Lock Nut is fully tightened.
5. Ensure the Clearance is even throughout 360° rotation and the Camera is free moving.
6. Replace Mount Cover Plates.





1.3 BRACKET TYPES

RV-SWAN (Swan mount), RV-WALL (Wall mount), RV-PNDT (Pendant mount), RV-PED (Pedestal for mast/tower mount).

TECH SUPPORT COMMENT: **It is important to match the menu software settings to the Camera orientation (6.4.7) i.e. is the Camera hanging down or upright?**

'hanging down' would be using one of the following bracket types :

- **swan [RV-SWAN] ,**
- **pendant [RV-PNDT]**
- **or wall [RV-WALL] - NOT SUITABLE FOR UPRIGHT MOUNTING**

'Upright' would be using the pedestal bracket [RV-PED]

1.4 HOW TO CANTILEVER BALL/PTZ ARMS FORWARD

1. Remove pear shaped badge on each arm using small flat head screw driver.
2. Slightly loosen by one turn (BUT DO NOT REMOVE) the allen screws.
3. Cantilever the Ball Arms forward to 'STOP' position.
4. Tighten allen screws.
5. Replace badges (spares are provided).
6. See Section 6.4.7 and from the SET UP MENU select either 'UPRIGHT ARMS OUT' or 'HANGING ARMS OUT'

2 HOW TO CONFIGURE THE CAMERA

2.1 REMOVING THE DIP SWITCH SCREW COVER

There are two rows of DIP switches located behind the large screw cap (see FIG 1 below). Use flat bladed screw driver to remove by turning anti-clockwise to unscrew.

2.1.1 CAMERA ORIENTATION FOR SETTING DIP SWITCHES

CAUTION: **Make sure the dip switches read right way up before configuring Camera. The word 'protocol' should be displayed as per picture see FIG 2 below**

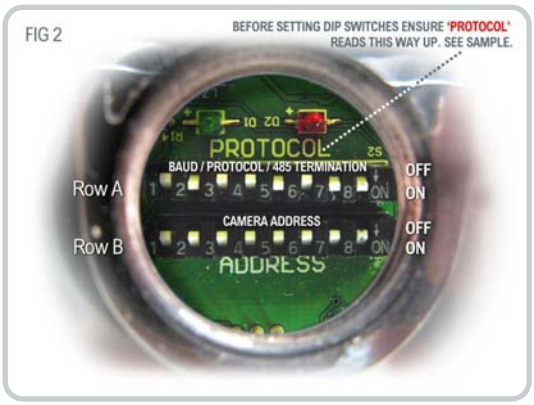
➔ **'ON' is down (away from the word protocol)**
➔ **'OFF' is up (toward the word protocol)**

The switch numbers read 1 to 8 from left to right

THE BAUD & PROTOCOL SWITCHES (ROW A) WORK AS FOLLOWS:

SWITCH 1,2,3	PROTOCOL (SEE 2.3)
SWITCH 4 & 5	BAUD RATE (2.4)
SWITCH 6	NOT USED
SWITCH 7	REAL TIME CLOCK (RTC) BATTERY ENABLE (2.6)
SWITCH 8	RS485 TERMINATION ENABLE (2.5)

Use row B (FIG 2 below) to set the Camera address (2.2)



2.1.2 DEFAULT DIP SWITCH SETTINGS

All X-series™ cameras are factory defaulted to the following configuration:

- BBV Up The Coax (UTC)
- Camera address set to 1
- RS485 termination set to ON
- Real-time clock set to OFF

2.2 SETTING THE CAMERA ADDRESS

See table TABLE 1 below for guidance on DIP switch setting for each Camera address. '0' represents OFF (up) and '1' represents ON (down).

TABLE 1

CAMERA ADDRESS	ROW 'B' DIP SWITCH 1	2	3	4	5	6	7	8	CAMERA ADDRESS	ROW 'B' DIP SWITCH 1	2	3	4	5	6	7	8
not used	0	0	0	0	0	0	0	0	16	0	0	0	0	1	0	0	0
1	1	0	0	0	0	0	0	0	17	1	0	0	0	1	0	0	0
2	0	1	0	0	0	0	0	0	18	0	1	0	0	1	0	0	0
3	1	1	0	0	0	0	0	0	19	1	1	0	0	1	0	0	0
4	0	0	1	0	0	0	0	0	20	0	0	1	0	1	0	0	0
5	1	0	1	0	0	0	0	0	21	1	0	1	0	1	0	0	0
6	0	1	1	0	0	0	0	0	22	0	1	1	0	1	0	0	0
7	1	1	1	0	0	0	0	0	23	1	1	1	0	1	0	0	0
8	0	0	0	1	0	0	0	0	24	0	0	0	1	1	0	0	0
9	1	0	0	1	0	0	0	0	25	1	0	0	1	1	0	0	0
10	0	1	0	1	0	0	0	0	26	0	1	0	1	1	0	0	0
11	1	1	0	1	0	0	0	0	27	1	1	0	1	1	0	0	0
12	0	0	1	1	0	0	0	0	28	0	0	1	1	1	0	0	0
13	1	0	1	1	0	0	0	0	29	1	0	1	1	1	0	0	0
14	0	1	1	1	0	0	0	0	30	0	1	1	1	1	0	0	0
15	1	1	1	1	0	0	0	0	31	1	1	1	1	1	0	0	0

See www.redvisioncctv.com/support/downloads for camera address 32 to 255

2.3 SETTING THE CAMERA PROTOCOL

On row 'A' Set DIP switch numbers 1, 2 and 3 (See TABLE 2 below). '1' represents ON (down) and '0 represents OFF (up).

TABLE 2

PROTOCOL	ROW 'A' DIP SWITCH 1	2	3	4	5	6	7	8
BBV Up the Coax	0	0	0					
Pelco P	0	1	0					
Pelco D	1	1	0					
Dennard	1	0	1					
Vista	0	0	1					
Bosch	0	1	1					
BBV422	1	1	1					

2.4 SETTING THE CAMERA BAUD RATE

On row 'A' Use DIP switch numbers 4 and 5 to set the Baud rate. 0=off (up) & 1=ON (down). (See TABLE 3 below).
For Baud Rate settings refer to user manual for the control equipment being used.
NB Pelco D is normally 2400, Pelco P is 4800, Dennard is 9600.

TABLE 3

BAUD	ROW 'A' DIP SWITCH 1	2	3	4	5	6	7	8
9600				0	0			
2400				1	0			
4800				0	1			
19200				1	1			

2.5 SETTING THE CAMERA RS485 TERMINATION

The default position is ON (down).

TABLE 4

TERMINATION	ROW 'A' DIP SWITCH 1	2	3	4	5	6	7	8
OFF								0
ON								1

CAUTION: **Termination switch should be set to ON (down) if:**

- ➔ **The Camera is being run on coax protocol**
- ➔ **The Camera is the only one connected to the twisted pair**
- ➔ **The Camera is last one on a daisy chain**
- ➔ **An alarm module has been fitted to the Camera power supply & is running 485 protocol**

The termination switch should be OFF(up) if:

More than one Camera is connected on a DAISY CHAIN but it is NOT the last in line [The exception would be if an alarm module were installed. If this were the case, the Camera should be terminated (ON/DOWN) and the alarm module would un-terminated (OFF/UP) see section 4.5 Setting the Alarm Module RS485 Termination].

2.6 REAL TIME CLOCK (RTC)

Row A, switch 7 sets the Camera's internal real time clock. The RTC is used for setting the cameras' internal clock & can be used for programming timed tours as well as RVX Series alarm functions (if using RVX-PSU-ALM16/W). The RTC battery can be set to 'ON' either at commissioning or installation stage. The default position is OFF (UP).

TABLE 5

RTC	ROW 'A' DIP SWITCH 1	2	3	4	5	6	7	8
OFF							0	
ON							1	

2.7 REPLACING THE DIP SWITCH COVER

- Before replacing the DIP switch screw cap, it is important to check it is free of dirt and grit. Thread contamination could affect the waterproof seal.
- The thread should be carefully aligned to prevent burring.
- Using a large flat bladed screw driver turn the screw CLOCKWISE to tighten.

3 POWER SUPPLY INSTALLATION & SETUP

WARRANTY & SAFETY NOTICE: DISCONNECT ALL POWER BEFORE OPENING OR WORKING ON THE POWER SUPPLY UNIT. INSTALLATION MUST BE CARRIED OUT BY A SUITABLY QUALIFIED PERSON.

Camera Warranty is void unless it is installed using one of the following Redvision power supplies and a Redvision supplied fly lead (Composite cable): Using the wrong type of 3rd party PSU could compromise safety and damage the camera unit.

- RVX-PSU • RVX-PSU-ALM16 • RVX-PSU-ALAM16-W

The RVX Power Supplies are compatible with the following X-Series Cameras:
RVX18, RVX18-W, RVX18-IR, RVX18-IR-W, RVX28, RVX28-W, RVX28-IR, RVX28-IR-W.

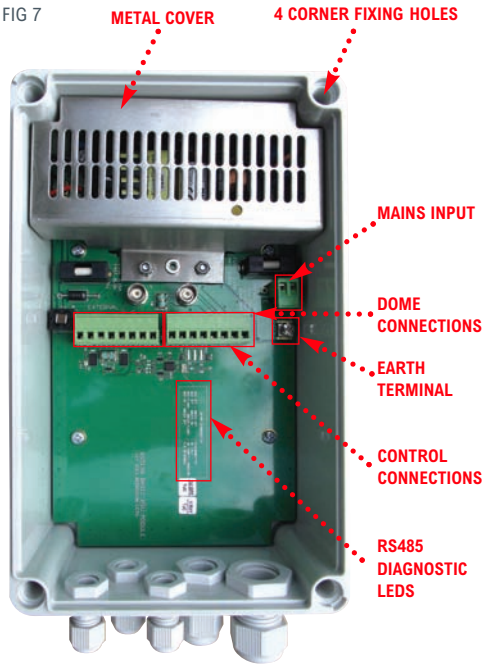
COMPOSITE CABLE: A pre-made composite cable with a 7 way female amphenol connector is supplied with all Redvision brackets. The female connector connects directly to the male connector on the RVX PTZ Camera housing. Follow the colour coding idents as shown in table 3.2.2 for terminating the fly lead in the power supply.

CABLE/ PIN OUT TABLE

PIN No.	CABLE/WIRE
1	Video Signal
2	Video Screen
3	White
4	Orange
5	NOT USED
6	RED 24Vdc
7 (Centre)	BLACK 0Vdc

The Redvision power supply (part code: RVX-PSU) outputs 24V DC & is supplied in a weather proof ABS box rated IP67.

FIG 7



3.1 REDVISION POWER SUPPLY (RVX-PSU)

1. Mount the Redvision PSU in a position so it cannot be interfered with intentionally or accidentally. Ideally use a lockable cabinet .
2. Securely fix the Redvision PSU using appropriate size screws and ensure the cable glands have sufficient clearance to allow the cables to enter.
3. All cables should be channelled through the appropriate sized gland holes.
4. It is recommended that a good quality screened data pair or coax is used for transmitting data signal.
5. If the Redvision alarm module and or wireless PIR module is to be used refer to section 4 and 5.
6. If Star configuration is used it is recommended a suitable Star Card interface is used.
7. Only use Redvision supplied umbilical cables for connecting the X-SERIES ball/PTZ dome & Redvision PSU. Warranty will be void if these cables are extended between the PTZ/dome unit and PSU. Extending cables could also compromise safety.

3.2 VOLTAGE

Input: 110V/230V
Output: 24Vdc @ 2A

3.3 RVX-PSU INTERNAL CONNECTIONS

3.3.1 MAINS INPUT

TABLE 6

PCB IDENT	MAINS POWER
LIVE	LIVE (BROWN) 110/230Vac Connection via 2 way terminal block
NEUTRAL	NEUTRAL (BLUE) Connection via 2 way terminal block
EARTH	GREEN/YELLOW Connection via terminal screw

NOTE: Earth connection requires 4mm red spade loop (supplied with PSU) to be fitted by engineer at installation.
SAFETY: ENSURE MAINS INPUT & EARTH CONNECTIONS ARE SECURELY STRAIN RELIEVED.

3.3.2 CONNECTIONS TO CAMERA - 8 WAY TERMINAL BLOCK

TABLE 7

PCB IDENT	UMBILICAL LEAD TO CAMERA
N/C	Normally Closed
N/C	Normally Closed
VIDEO	Coax signal (BNC 7)
V-GND	Coax screen
RS485(A)	White
RS485(B)	Orange
+24V	Red
0V	Black and cable screen

3.3.3 CONNECTIONS TO CONTROL - 8 WAY TERMINAL BLOCK

TABLE 8

PCB IDENT	CONTROL CONNECTIONS
AUX-C	
AUX-E	Not used
VIDEO	COAX signal (BNC P6)
V-GND	COAX screen
RS485(A)	RS485(A)
RS485(B)	RS485(B)
24V	
0V	

3.3.4 RS485 DIAGNOSTIC LEDs

TABLE 9

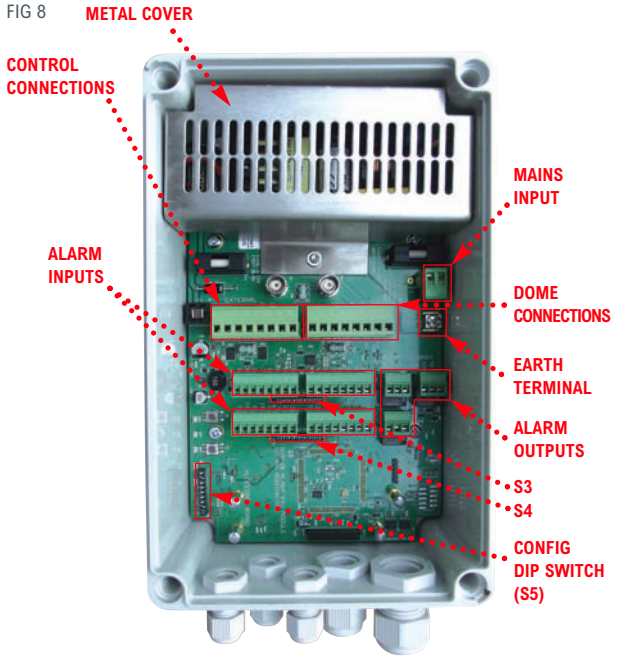
STATUS	DESCRIPTION
RED/OFF GREEN/OFF	DISCONNECTED
RED/OFF GREEN/ON	OK IDLE
RED/FLASH GREEN/FLASH	OK - TRAFFIC PASSING
RED/ON GREEN/ON	A/B REVERSED

3.3.5 FUSE PROTECTION

TABLE 10

PCB IDENT	DESCRIPTION
F1	Mains input fuse 3.15A - Anti Surge
F2	Camera fuse 3.15A - Fast Blow

FIG 8



4 RVX-PSU-ALM16 (PSU WITH ALARM MODULE)

WARRANTY & SAFETY NOTICE: DISCONNECT ALL POWER BEFORE OPENING OR WORKING ON THE RVX-PSU-ALM16 POWER SUPPLY UNIT WITH EMBEDDED ALARM CARD. THIS PROTECTS HIGH VOLTAGE COMPONENTS. INSTALLATION MUST BE CARRIED OUT BY A SUITABLY QUALIFIED PERSON.

4.1 VOLTAGE

Input: 100-230V 47-63Hz 80VA MAX
Output: 24Vdc @ 2A

4.2 RVX-PSU-ALM16 INTERNAL CONNECTIONS

4.2.1 MAINS INPUT

TABLE 11

PCB IDENT	MAINS POWER
LIVE	LIVE (BROWN) 110/230Vac Connection via 2 way terminal block
NEUTRAL	NEUTRAL (BLUE) Connection via 2 way terminal block
EARTH	GREEN/YELLOW Connection via earth terminal screw

NOTE: Earth connection requires 4mm red spade loop (supplied with PSU) to be fitted by engineer at installation.
SAFETY: ENSURE MAINS INPUT & EARTH CONNECTIONS ARE SECURELY STRAIN RELIEVED.

4.2.2 CONNECTIONS TO CAMERA - 8 WAY TERMINAL BLOCK

TABLE 12

PCB IDENT	UMBILICAL LEAD TO CAMERA
N/C	Normally Closed
N/C	Normally Closed
VIDEO	Coax signal (BNC 7)
V-GND	Coax screen
RS485(A)	White (+IVE)
RS485(B)	Orange
+24V	Red
0V	Black and cable screen

4.2.3 CONNECTIONS TO CONTROL - 8 WAY TERMINAL BLOCK

TABLE 13

PCB IDENT	CONTROL CONNECTIONS
AUX-C	
AUX-E	
VIDEO	COAX signal (BNC P6)
V-GND	COAX screen
RS485(A)	RS485(A)
RS485(B)	RS485(B)
24V	Red
0V	Black and cable screen

4.2.4 RS485 DIAGNOSTIC LEDs

TABLE 14

STATUS	DESCRIPTION
RED/OFF GREEN/OFF	DISCONNECTED
RED/OFF GREEN/ON	OK IDLE
RED/FLASH GREEN/FLASH	OK - TRAFFIC PASSING
RED/ON GREEN/ON	A/B REVERSED

4.2.5 FUSE PROTECTION

TABLE 15

PCB IDENT	DESCRIPTION
F1	Mains input fuse 3.15A - Anti Surge
F2	Camera fuse 3.15A - Fast Blow

4.3 ALARM MODULE DIP SWITCH SETTINGS

Refer to S5 'CONFIG DIP SWITCH' (see diagram in FIG 8, page 8) for Setting Protocol, Baud Rate & RS485 termination. Switches 6 & 7 are NOT used.

4.3.1 PROTOCOL - ALARM MODULE

TABLE 16

	Protocol			Baud Rate				RS 485 Termination
DIP SWITCH No.	1	2	3	4	5	6	7	8
BBV Coax	0	0	0			NOT USED	NOT USED	
Pelco P	0	1	0					
Pelco D	1	1	0					
Dennard	1	0	1					
Vista	0	0	1					
Bosch/ForwardVision	0	1	1					
BBV 422	1	1	1					

TECH SUPPORT COMMENT: **Alarm module PROTOCOL should be set to the same PROTOCOL as the camera.**

4.3.2 BAUD RATE - ALARM MODULE

TABLE 17

	Protocol			Baud Rate				RS 485 Termination
DIP SWITCH No.	1	2	3	4	5	6	7	8
2400				1	0	NOT USED	NOT USED	
4800				0	1			
9600				0	0			
19200				1	1			

TECH SUPPORT COMMENT: **Alarm module BAUD RATE should be set to the same BAUD RATE as the camera.**

PELCO D normally uses 2400. PELCO P normally uses 4800.

4.3.3 RS485 TERMINATION - ALARM MODULE
See 4.5.1 for TERMINATION SCENARIOS

TABLE 18

	Protocol			Baud Rate				RS 485 Termination
DIP SWITCH No.	1	2	3	4	5	6	7	8
OFF	0	0	0			NOT USED	NOT USED	0
ON	0	1	0					1

4.4 ALARM INPUTS

1-16 sets of volt free Contacts which can be configured using the onboard 8 way dip S3 & S4 (FIG 8, page 8) for either normally open or normally closed operation. See **4.5** below.

4.4.1 ALARM INPUT GROUNDS

16 Alarm Inputs are provided to match 16 Ground Inputs.

4.4.2 RELAY OUTPUTS (VOLT FREE)

There are 3 relay outputs NO/NC 0V output: Alarms, Wash and Aux.
ALARMS are tied into ALARM INPUTS.
WASH is activated by a wash command or by user defined preset.
AUX can be triggered by ACTIVE ALARMS or IR NIGHT MODE SWITCHING.

4.5 NORMALLY OPEN/NORMALLY CLOSED ALARM INPUTS

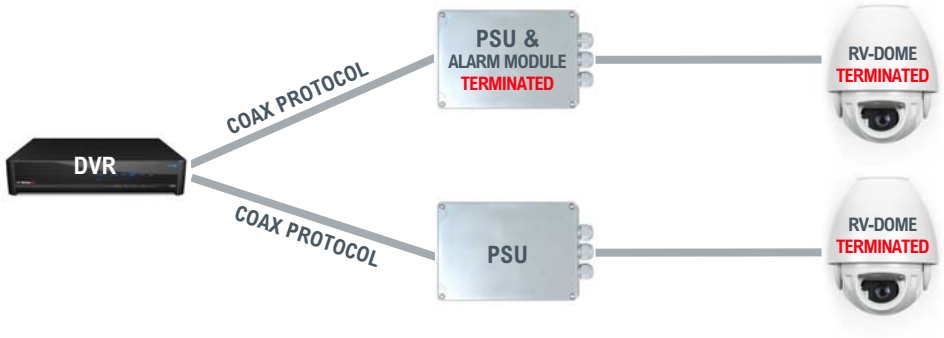
See S3 & S4 on the RVX-PSU-ALM16 PCB (see diagram FIG 8, page 8)

TABLE 19

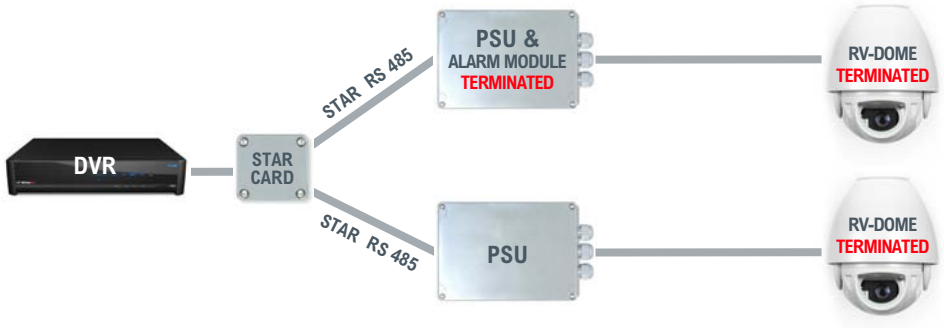
S3	NO/NC ALARMS 1-8
S4	NO/NC ALARMS 9-16

4.5.1 TERMINATION SCENARIOS

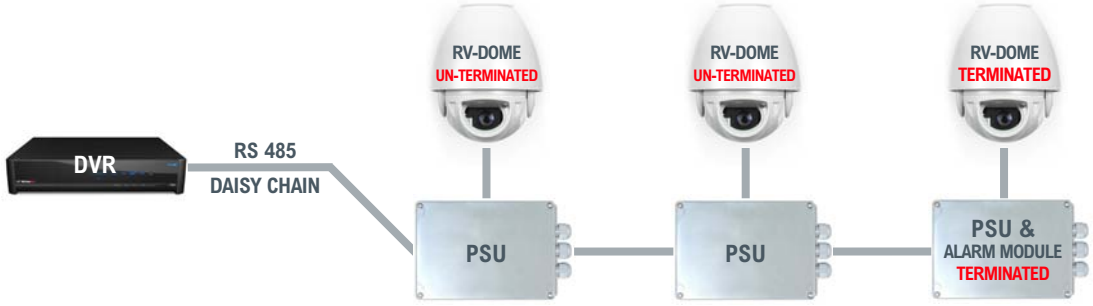
If control is over coax protocol, both the Camera and Alarm Module should be terminated.



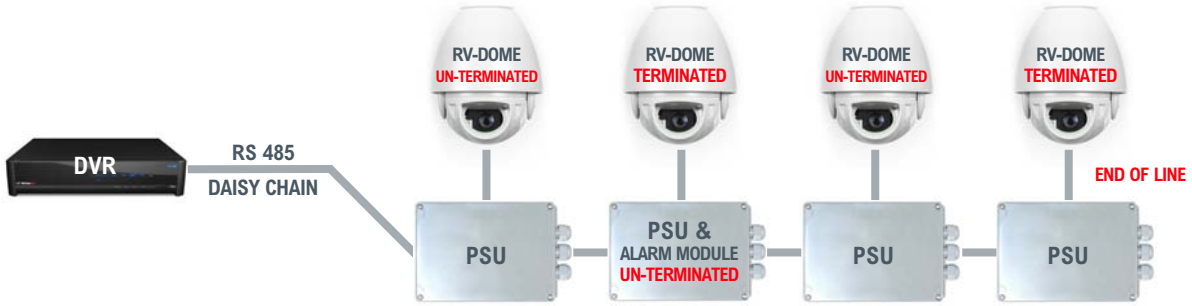
If control is over RS485 and the system is running a Star Card configuration, both the Camera and Alarm Module should be terminated.



If control is over RS485 and the system is running a Daisy Chain configuration then;
(A) *If the Camera and Alarm Module is the last in line, both the Camera and Alarm Module should be terminated.*



(B)) If the Camera and Alarm Module is NOT the last in line, the Camera should be terminated and the Alarm Module un-Terminated. The Alarm Module takes over the termination from the Camera i.e. it (the Alarm Module) should be un-terminated!



5 WIRELESS ALARM CARD (WIRELESS PIR DETECTOR)

WARRANTY & SAFETY NOTICE: DISCONNECT ALL POWER BEFORE OPENING OR WORKING ON THE POWER SUPPLY UNIT AND ALARM CARD. WIRELESS ALARM CARDS SHOULD NOT BE HOT SWAPPED OR INSTALLED WHILST THE POWER IS LIVE. INSTALLATION MUST BE CARRIED OUT BY A SUITABLY QUALIFIED PERSON.

5.1 FACTORY FITTED WIRELESS CARD (RV-PSU-ALM16-W)

The Redvision Wireless Card is compatible with the Redvision Wireless PIR, Luminite Genesis Range and the Redwall Wireless Transmitter Module Part Code WF434T, (wireless enables Redwall PIRs).

This PSU is compatible with the following RVX SERIES PTZs:
RVX18, RVX18-IR, RVX18-W, RVX18-IR-W, RVX28, RVX28-IR, RVX28-W, RVX28-IR-W.

Refer to **4.2** for RVX-PSU INTERNAL CONNECTIONS & **4.3** for ALARM MODULE DIP SETTINGS.

5.1.1 CONFIGURING WIRELESS ALARM MODULE

ALARM INPUTS

The RVX-PSU-ALM16-W has 16 Alarm Inputs. These can either be used as either HARDWIRED or WIRELESS Alarm Inputs, or a combination of both, e.g. 8 HARDWIRED & 8 WIRELESS.

DIP SWITCH SETTINGS

The WIRELESS Alarm Module has a single 8 Way DIP SWITCH. (See FIG 8 below).

TABLE 19

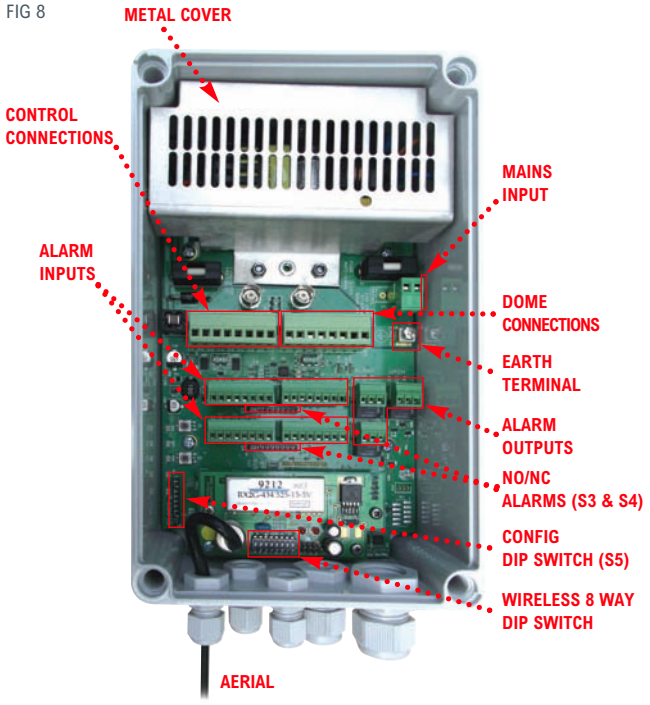
SW1

	4	5	6	7	8
1	▲	▲	▲	▲	▲
2	▲	▲	▲	▲	▼
3	▲	▲	▲	▼	▲
4	▲	▲	▲	▼	▼
5	▲	▲	▼	▲	▲
6	▲	▲	▼	▲	▼
7	▲	▲	▼	▼	▲
8	▲	▲	▼	▼	▼
9	▲	▼	▲	▲	▲
10	▲	▼	▲	▲	▼
11	▲	▼	▲	▼	▲
12	▲	▼	▲	▼	▼
13	▲	▼	▼	▲	▲
14	▲	▼	▼	▲	▼
15	▲	▼	▼	▼	▲
16	▲	▼	▼	▼	▼

UP = ▲
DOWN = ▼

- 1 to 3 dip switches are not used & should be left 'ON' (UP)
- Switches 4 to 8 (Dome Head Site Code) provide up to 32 (1 to 16 shown in TABLE 19) channels of wireless transmission to enable alarm activation.
- The transmission needs to be matched between the Dome Head Site Code on the wireless alarm module & the Site Code within the PIR detector (see separate PIR installation guide supplied with the PIR).
- One or more domes wil respond to any wireless PIR within range providing the Dome Head Site Code & corresponding PIR Site Code match.

FIG 8



5.1.2 POSITIONING OF RV-PSU-ALM16-W

To maximise the transmission range install the PSU externally with the aerial pointing through the gland towards the ground. An optional booster aerial (RV-AE434) can be used to significantly improve signal and range. It is recommended to use the booster aerial if the PIRs are installed on metal clad buildings.

5.2 IF RETRO FITTING WIRELESS ALARM RECEIVER

If Retro-Fitting a wireless alarm receiver card onto an existing 16 way alarm module (RVX-PSU-ALM16-W) observe the following steps:

A) ISOLATE POWER FROM PSU - YOU CANNOT HOT SWAP WIRELESS ALARM MODULE.
B) Align Wireless Alarm Module with P3 Connector and secure with M3 fixings.
E) Thread aerial antenna through gland and connect to BNC on Wireless Receiver.
F) See Table 19, 5.1.1 for DIP switch settings.

6 NAVIGATING THE MENUS

6.1 MENU NAVIGATION - FLOW CHART

Use joystick/Arrow keys to navigate the menu options. See FIG 9, page 15.

6.1.1 ACCESS MAIN MENU FROM 3rd PARTY CONTROLLERS

As most keyboards differ in the way they access the Camera's MAIN MENU it is recommended the user refers to the specific keyboard manual for the control system they are using. See Table 20, below, for examples.

Some common examples for accessing the Camera main menu and commands are as follows:

TABLE 20

CONTROLLER	ACCESS MAIN CAMERA MENU
BBV	Press & hold # then press 1
DTX400	Press & hold SHIFT then press 1
BBV 1000	Press hold # then press wash key
DTX 1000	Press & hold # then wash key
PELCO	Save 95 Preset

6.1.2 EXIT MENU

Move the joystick or arrow keys to the left from all levels to exit the Camera main menu. Any changes made will be saved permanently when the menu is exited. The message 'SAVED OK' will appear to confirm changes have been saved.

6.2 LOGIN

Use joystick/Arrow keys to navigate the menu options.

- ➔ From main menu move joystick/arrow ▸ TO LOGIN MENU
- ➔ MOVE ◂▸▴▾ ENTER DIGIT PASSWORD
- ➔ MOVE ◂ TO SAVE & EXIT

A message will display to confirm successful login or not.

Default PASSWORDS:	TECHNICIAN	999900 (Full access)
	SUPERVISOR	555500 (partial access)
	OPERATOR	111100 (limited access)

To change a password see 6.4.5.4 & view permissions rights see 6.4.5

6.3 LOGIN EXPIRY

After 5 minutes of user inactivity the system times out and the Camera reverts to its previous activity. Access to the menu will be denied unless password is re-entered.

6.4 SET UP

The 'SET UP' is the main sub menu for accessing Camera configuration settings. See 6.4.1 to 6.4.10.

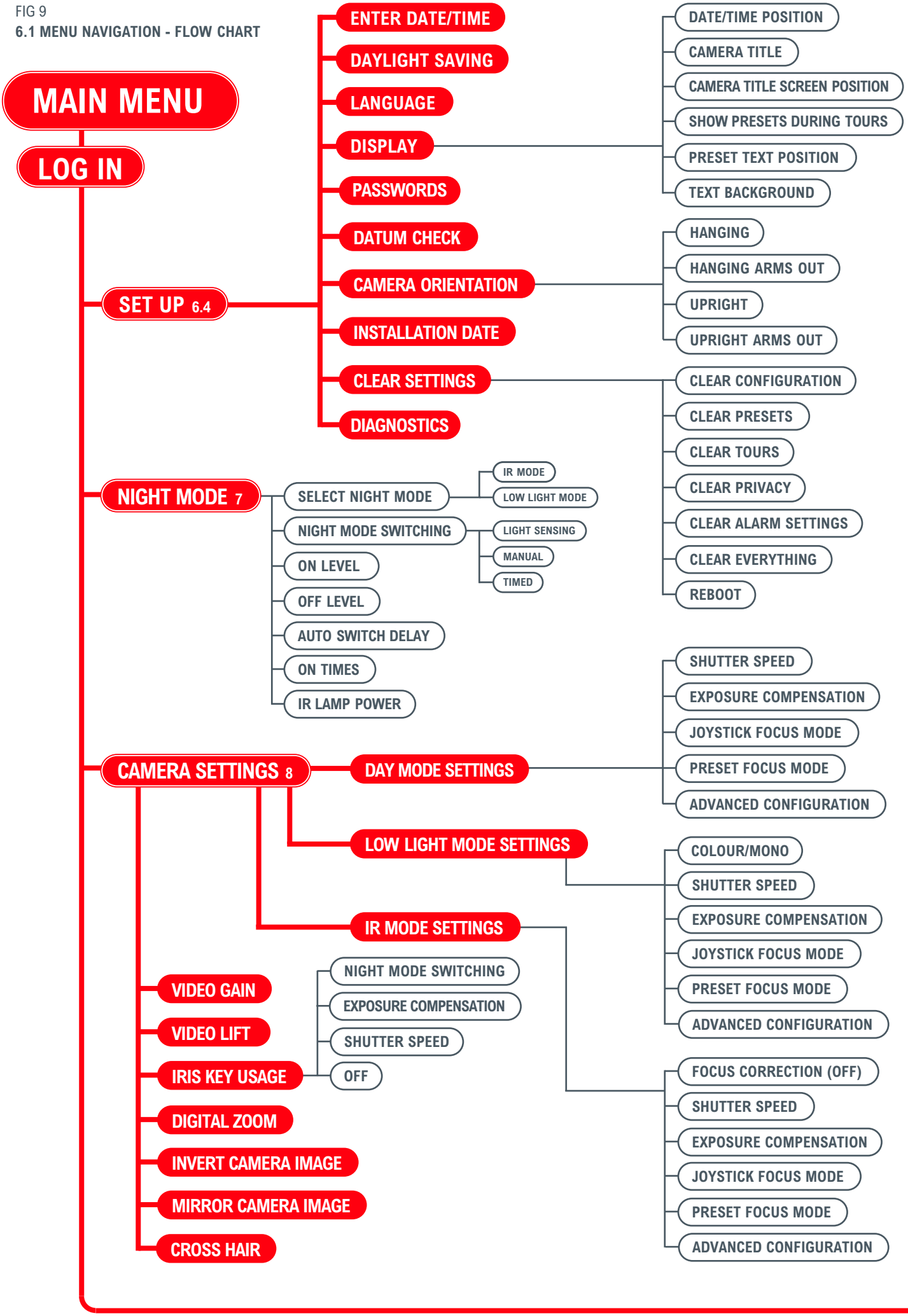
LOGIN > MAIN MENU > **SET UP**

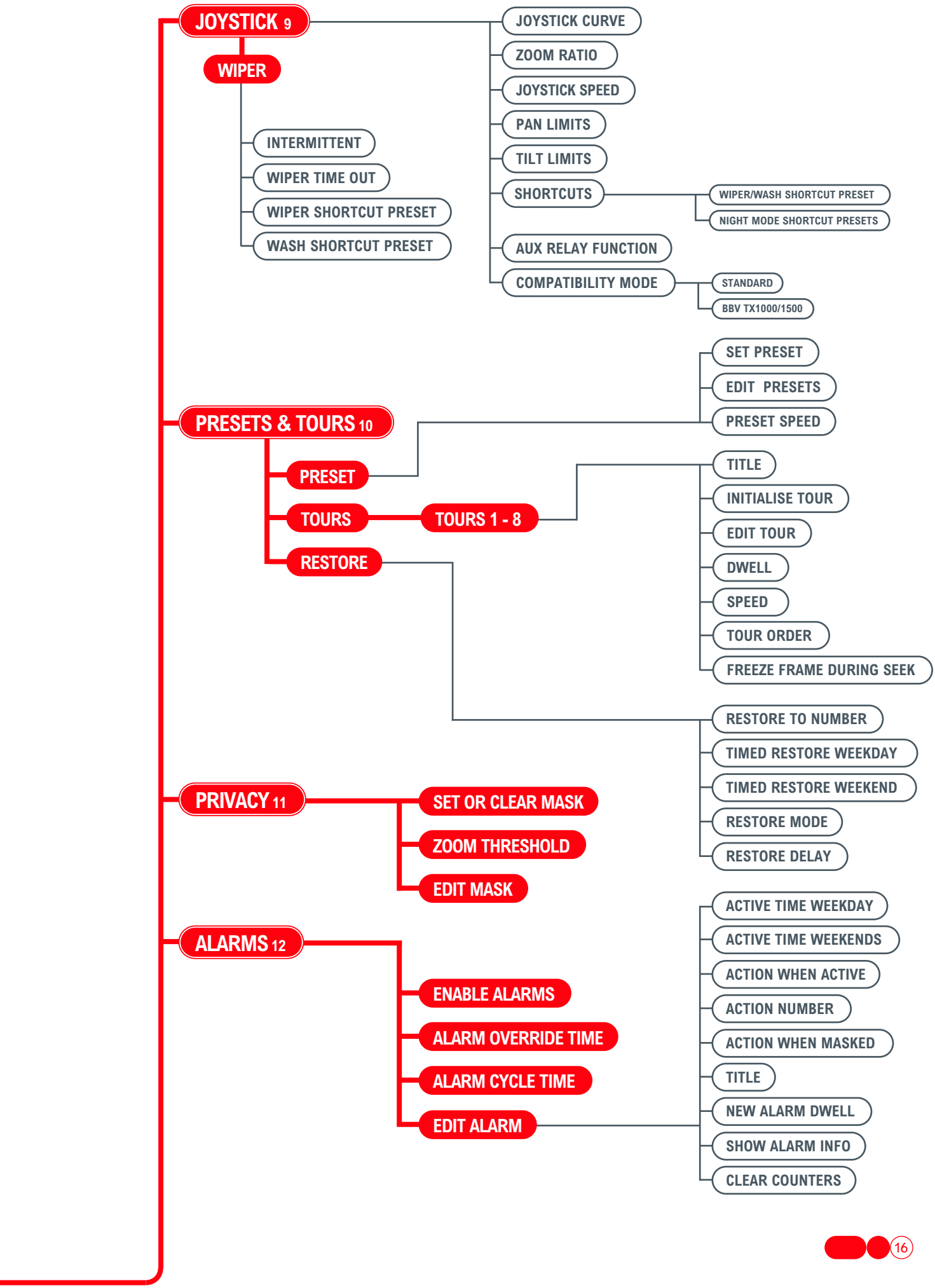
6.4.1 ENTER DATE & TIME

- ➔ LOGIN > MAIN MENU > **SETUP > ENTER DATE/TIME**
- ➔ MOVE ◂▸▴▾ TO SET DATE DD:MM:YY & TIME HH:MM:SS
- ➔ MOVE ◂ TO SAVE & EXIT

FIG 9

6.1 MENU NAVIGATION - FLOW CHART




JOYSTICK 9
WIPER
INTERMITTENT
WIPER TIME OUT
WIPER SHORTCUT PRESET
WASH SHORTCUT PRESET
JOYSTICK CURVE
ZOOM RATIO
JOYSTICK SPEED
PAN LIMITS
TILT LIMITS
SHORTCUTS
WIPER/WASH SHORTCUT PRESET
NIGHT MODE SHORTCUT PRESETS
AUX RELAY FUNCTION
COMPATIBILITY MODE
STANDARD
BBV TX1000/1500
PRESETS & TOURS 10
PRESET
TOURS
TOURS 1 - 8
RESTORE
SET PRESET
EDIT PRESETS
PRESET SPEED
TITLE
INITIALISE TOUR
EDIT TOUR
DWELL
SPEED
TOUR ORDER
FREEZE FRAME DURING SEEK
RESTORE TO NUMBER
TIMED RESTORE WEEKDAY
TIMED RESTORE WEEKEND
RESTORE MODE
RESTORE DELAY
PRIVACY 11
SET OR CLEAR MASK
ZOOM THRESHOLD
EDIT MASK
ALARMS 12
ENABLE ALARMS
ALARM OVERRIDE TIME
ALARM CYCLE TIME
EDIT ALARM
ACTIVE TIME WEEKDAY
ACTIVE TIME WEEKENDS
ACTION WHEN ACTIVE
ACTION NUMBER
ACTION WHEN MASKED
TITLE
NEW ALARM DWELL
SHOW ALARM INFO
CLEAR COUNTERS

6.4.2 DAYLIGHT SAVING

Default setting is AUTO.

- ➔ LOGIN > MAIN MENU > **SETUP > DAYLIGHT SAVING**
- ➔ MOVE ◀▶▲▼ TO SET AUTO, OFF (+0), ON (+1)
- ➔ MOVE ◀ TO SAVE & EXIT

6.4.3 LANGUAGE OPTIONS

Localise the display messages into the following language options:

- English
- Spanish
- German
- French
- Portuguese

- ➔ LOGIN USING TECHNICIAN PASSCODE > MAIN MENU > **LANGUAGES**
- ➔ MOVE ▲▼ TO CHANGE LANGUAGE
- ➔ MOVE ◀ TO SAVE & EXIT

6.4.4 DISPLAY

6.4.4.1 DATE/TIME POSITION

User has the option of inserting the on screen position of the date/time

- ➔ LOGIN > MAIN MENU > **SETUP > DISPLAY > DATE & TIME POSITION**
- ➔ MOVE ▲▼ TO MOVE THE DISPLAY POSITION
- ➔ MOVE ◀ TO SAVE & EXIT

Default is OFF (nothing displayed).

6.4.4.2 CAMERA TITLE

- ➔ LOGIN > MAIN MENU > **SETUP > DISPLAY > CAMERA TITLE > TITLE**
- ➔ MOVE ▲▼ TO CHANGE ALPHANUMERIC CHARACTERS
- ➔ MOVE ◀ TO SAVE & EXIT

6.4.4.3 CAMERA TITLE SCREEN POSTION

- ➔ LOGIN > MAIN MENU > **SETUP > DISPLAY > CAMERA TITLE > POSITION ON SCREEN**
- ➔ MOVE ▲▼ TO MOVE SCREEN POSITION
- ➔ MOVE ◀ TO SAVE & EXIT

6.4.4.4 SHOW PRESET TITLES DURING TOURS

- ➔ LOGIN > MAIN MENU > **SETUP > DISPLAY > SHOW PRESET TITLE DURING TOURS**
- ➔ MOVE ▲▼ SELECT YES/NO
- ➔ MOVE ◀ TO SAVE & EXIT

6.4.4.5 PRESET TEXT POSITION

- ➔ LOGIN > MAIN MENU > **SETUP > DISPLAY > SHOW PRESET TEXT POSITION**
- ➔ MOVE ▲▼ TO CHANGE POSITION
- ➔ MOVE ◀ TO SAVE & EXIT

TECH SUPPORT COMMENT: **It is important users do not set everything to the same corner of the screen**

6.4.4.6 TEXT BACKGROUND

- ➔ LOGIN > MAIN MENU > **SETUP > DISPLAY > TEXT BACKGROUND**
- ➔ MOVE ▲▼ SELECT TO CHANGE TEXT BACKGROUND
- ➔ MOVE ◀ TO SAVE & EXIT

6.4.5 PASSWORDS

- ➔ LOGIN > MAIN MENU > **SETUP > PASSWORDS**

6.4.5.1 OPERATOR (LIMITED ACCESS)
Default password is 111100. TO CHANGE see 6.4.5.4
Permission rights:

- Date/time
- Daylight saving
- Presets
- Tours
- Display options
- Language options
- Datum check

6.4.5.2 SUPERVISOR (PARTIAL ACCESS)
Default password is 555500. TO CHANGE see 6.4.5.4
Permission rights: All operator permissions plus:

- Clear privacy
- Set privacy
- Alarms

6.4.5.3 TECHNICIAN (FULL ACCESS)
Default password is 999900. TO CHANGE see 6.4.5.4
Permission rights: All operator & supervisor permissions plus:

- Camera titles
- Set passwords
- Installation date
- Clear settings
- Reboot
- Diagnostics
- IR modes
- Camera settings
- Joystick settings
- Wiper settings

6.4.5.4 TO CHANGE PASSWORD

- ➔ LOGIN > MAIN MENU > **SETUP > PASSWORDS**
- ➔ LOGIN USING TECHNICIAN PASSCODE
- ➔ MOVE ◀▶▲▼ TO SELECT LEVEL TO BE CHANGED
- ➔ MOVE ◀▶▲▼ TO CHANGE PASSWORD NUMBER
- ➔ MOVE ◀ TO SAVE & EXIT

6.4.6 DATUM CHECK
The Redvision X-Series Camera is programmed to perform a datum check every 24 hours. The Camera will pan and tilt for a few seconds while it undergoes a self diagnostic test and re-checks its alignment. When the process is complete the Camera will revert to its previous activity including any tours with presets.

TECH SUPPORT COMMENT: **It is recommended to leave the Camera in the default 24 hour option**

6.4.7 CAMERA ORIENTATION

The Camera orientation automatically sets the maximum tilt up/down positions depending on whether the Camera is in upright or hanging down mode. The maximum tilt restrictions can be deactivated to allow full tilt movement. See 9.6.

- LOGIN > MAIN MENU > **SETUP > CAMERA ORIENTATION**
- MOVE ▲▼ TO SELECT CAMERA ORIENTATION > HANGING, HANGING ARMS OUT, UPRIGHT, UPRIGHT ARMS OUT
- MOVE ◀ TO SAVE & EXIT

6.4.8 DATE AND TIME OF INSTALLATION

- LOGIN > MAIN MENU > **SETUP > INSTALLATION DATE**
- MOVE ◀▶▲▼ TO ENTER INSTALLATION DATE/TIME
- MOVE ◀ TO SAVE & EXIT

6.4.9 CLEAR SETTINGS

6.4.9.1 CLEAR CONFIGURATION

Use this option to partially clear configuration settings. All configuration changes except for tours and presets will be reset to factory default.

- LOGIN > MAIN MENU > **SETUP > CLEAR SETTINGS > CLEAR CONFIGURATION**
- MOVE ▲▼ TO SELECT YES/NO
- MOVE ◀ TO SAVE & EXIT

6.4.9.2 CLEAR PRESETS

Use this option to clear ALL stored presets.

- LOGIN > MAIN MENU > **SETUP > CLEAR SETTINGS > CLEAR PRESETS**
- MOVE ▲▼ TO SELECT YES/NO
- MOVE ◀ TO SAVE & EXIT

6.4.9.3 CLEAR TOURS

Use this option to clear ALL stored tours.

- LOGIN > MAIN MENU > **SETUP > CLEAR SETTINGS > CLEAR TOURS**
- MOVE ▲▼ TO SELECT YES/NO
- MOVE ◀ TO SAVE & EXIT

6.4.9.4 CLEAR PRIVACY MASKS

Use this option to clear ALL privacy masks.

- LOGIN > MAIN MENU > **SETUP > CLEAR SETTINGS > CLEAR PRIVACY MASKS**
- MOVE ▲▼ TO SELECT YES/NO
- MOVE ◀ TO SAVE & EXIT

6.4.9.5 CLEAR ALARM SETTINGS

- LOGIN > MAIN MENU > **SETUP > CLEAR SETTINGS > CLEAR ALARM SETTINGS**
- MOVE ▲▼ TO SELECT YES/NO
- MOVE ◀ TO SAVE & EXIT

6.4.9.6 CLEAR EVERYTHING

This option clears ALL settings but does not reboot the camera, therefore leaving video picture.

- LOGIN > MAIN MENU > **SETUP > CLEAR SETTINGS > CLEAR EVERYTHING**
- MOVE ▲▼ TO SELECT YES/NO
- MOVE ◀ TO SAVE & EXIT

6.4.9.7 REBOOT

To soft restart the camera (equivalent to power cycling).

- LOGIN > MAIN MENU > **SETUP > CLEAR SETTINGS > REBOOT**
- MOVE ▲▼ TO SELECT YES/NO
- MOVE ◀ TO SAVE & EXIT

6.4.10 DIAGNOSTICS

There are five diagnostic screens which display useful information for the technician and remote help diagnostics for Redvision's technical support helpdesk. They are not configurable.

To access the diagnostic screens.

- ➔ LOGIN > MAIN MENU > **SETUP > DIAGNOSTICS**
- ➔ MOVE ▲▼ TO SELECT SYSTEM, STATUS, CAMERA, TELEMETRY OR MOTORS
- ➔ MOVE ◀ TO SAVE & EXIT

To 'exit' motors, it is necessary to 'recall' the menu see 6.1.1

7 NIGHT MODE

7.1 SELECT NIGHT MODE

IR Mode
Low Light Mode

- ➔ LOGIN > MAIN MENU > **NIGHT MODE > SELECT NIGHT MODE**
- ➔ MOVE ▲▼ TO SELECT EITHER IR MODE OR LOW LIGHT MODE
- ➔ MOVE ◀ TO SAVE & EXIT

7.2 NIGHT MODE SWITCHING

Light sensing
Manual
Timed

- ➔ LOGIN > MAIN MENU > **NIGHT MODE > NIGHT MODE SWITCHING**
- ➔ MOVE ▲▼ TO SELECT EITHER LIGHT SENSING, MANUAL OR TIMED
- ➔ MOVE ◀ TO SAVE & EXIT

7.3 ON LEVEL

Light level at which the camera switches to either IR mode or Low Light Mode (Low light mode can be set to force camera to stay in colour or mono without infra red)
Default setting is 50. On Level must be lower than OFF level. The lower the number the darker the light needs to be in order for the camera to switch to IR mode or Low Light Mode..

- ➔ LOGIN > MAIN MENU > **NIGHT MODE > ON LEVEL**
- ➔ MOVE ▲▼ CHANGE VALUE
- ➔ MOVE ◀ TO SAVE & EXIT

TECH SUPPORT COMMENT: ***The numerical value is an arbitrary figure and not a lux measurement.**

7.4 OFF LEVEL

Light level at which the camera switches to DAY MODE Colour.

- ➔ LOGIN > MAIN MENU > **NIGHT MODE > OFF LEVEL**
- ➔ MOVE ▲▼ CHANGE VALUE
- ➔ MOVE ◀ TO SAVE & EXIT

7.5 AUTO SWITCH DELAY

The AUTO SWITCH DELAY time can be set in seconds. The delay prevents the IR pods & Camera responding to short term effects e.g. car headlights, which may cause the IR pods & Camera to switch to mono.

- ➔ LOGIN > MAIN MENU > **NIGHT MODE > AUTO SWITCH DELAY**
- ➔ MOVE ▲▼ CHANGE VALUE (1 - 999 seconds)
- ➔ MOVE ◀ TO SAVE & EXIT

Solid block = Infra red ON
No Block = Infra red OFF

7.6 ON TIMES

The IR PODS (RVX-IR version) & Camera can be programmed to switch on/off colour/mono at pre-determined times. There are 24 block positions representing each hour of the day.

- LOGIN > MAIN MENU > **NIGHT MODE > IR ON TIMES**
- MOVE ▲▼ TO SELECT HOUR TIME BLOCKS
- MOVE ◀ TO SAVE & EXIT

7.7 INFRA RED POWER (RVX-IR VERSION ONLY)

The infra-red intensity can be varied. Default is set to 100%.

- LOGIN > MAIN MENU > **NIGHT MODE > IR POWER**
- MOVE ▲▼ CHANGE VALUE
- MOVE ◀ TO SAVE & EXIT

8 CAMERA SETTINGS

Use CAMERA SETTINGS to optimise the Sony module performance for specific day or night-time conditions.

1. Day Settings – default day time colour & IR PODS off (RVX-IR models) (see 8.1).
2. Night Mode settings – camera is either in IR Mode or Low Light Mode (see 7.1).

8.1 DAY MODE SETTINGS

8.1.1 SHUTTER SPEED

Adjust the shutter speed to achieve greater light sensitivity. Default is 1/215

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > SHUTTER SPEED**
- MOVE ▲▼ TO CHANGE SHUTTER SPEED 1/1 to AUTO
- MOVE ◀ TO SAVE & EXIT

8.1.2 EXPOSURE COMPENSATION

Adjustment for unusual lighting distribution. Compensation can be either positive (additional exposure) or negative (reduced exposure). Default setting = 0

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > EXPOSURE COMPENSATION**
- MOVE ▲▼ TO ADJUST EXPOSURE LEVEL BETWEEN +7 AND -7
- MOVE ◀ TO SAVE & EXIT

8.1.3 JOYSTICK FOCUS MODE

There are two settings AUTO focus & MANUAL focus. Default setting for day is auto.

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > JOYSTICK FOCUS MODE**
- MOVE ▲▼ TO SELECT AUTO OR MANUAL
- MOVE ◀ TO SAVE & EXIT

8.1.4 PRESET FOCUS MODE **(SONY MODULE)**

There are two modes: auto & stored. Default setting for day is auto.

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > PRESET FOCUS MODE**
- MOVE ▲▼ TO SELECT AUTO OR STORED
- MOVE ◀ TO SAVE & EXIT

8.1.5. ADVANCED CONFIGURATION

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > ADVANCED CONFIGURATION**

8.1.5.1 ZOOM LIMIT **(SONY MODULE)**

This can be adjusted from 10% to 100%

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > ZOOM LIMIT**
- MOVE ▲▼ TO CHANGE ZOOM LIMIT (10% to 100%)
- MOVE ◀ TO SAVE & EXIT

8.1.5.2 BACKLIGHT COMPENSATION

The ability of a Camera to compensate in cases where a subject with a large amount of background light would otherwise be obscured by blooming or silhouetting. Can be turned ON or OFF. Default is off.

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > ADV CONFIG > BACKLIGHT COMPENSATION**
- MOVE ▲▼ TO SELECT ON/OFF
- MOVE ◀ TO SAVE & EXIT

8.1.5.3 IMAGE STABILISER **(SONY MODULE)**

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > ADV CONFIG > IMAGE STABILISER**
- MOVE ▲▼ TO SELECT ON/OFF
- MOVE ◀ TO SAVE & EXIT

8.1.5.4 WHITE BALANCE

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > ADV CONFIG > WHITE BALANCE**
- MOVE ▲▼ TO SELECT OPTION
- MOVE ◀ TO SAVE & EXIT

8.1.5.5 NOISE REDUCTION (PARKED)

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > ADV CONFIG > NOISE REDUCTION (PARKED)**
- MOVE ▲▼ TO ADJUST 0 to 5 (0 IS DEFAULT)
- MOVE ◀ TO SAVE & EXIT

8.1.5.6 NOISE REDUCTION (MOVING)

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > ADV CONFIG > NOISE REDUCTION (MOVING)**
- MOVE ▲▼ To ADJUST 0 to 5 (2 is DEFAULT)
- MOVE ◀ TO SAVE & EXIT

8.1.5.7 SPOT AE **(SONY MODULE)**

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > ADV CONFIG > SPOT AE**
- MOVE ▲▼ TO SELECT ON/OFF
- MOVE ◀ TO SAVE & EXIT

8.1.5.8 APERTURE CORRECTION **(SONY MODULE)**

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > ADV CONFIG > APERTURE CORRECTION**
- MOVE ▲▼ TO SELECT 1 to 16 (9 IS DEFAULT)
- MOVE ◀ TO SAVE & EXIT

8.1.5.9 GAIN LIMIT

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > ADV CONFIG > GAIN LIMIT**
- MOVE ▲▼ TO CHANGE VALUE
- MOVE ◀ TO SAVE & EXIT

8.1.5.10 CHROMA CORRECTION **(HITACHI MODULE)**

- LOGIN > MAIN MENU > **CAMERA SETTINGS > DAY MODE SETTINGS > CHROMA CORRECTION**
- MOVE ▲▼ TO CHANGE VALUE
- MOVE ◀ TO SAVE & EXIT

8.2 LOW LIGHT MODE SETTINGS

The following settings apply when the camera switches from **DAY MODE SETTINGS** (colour) to **NIGHT MODE>LOW LIGHT MODE SETTINGS**

8.2.1 COLOUR/MONO

Select either **COLOUR or MONO** for when the camera switches to **LOW LIGHT MODE SETTING.** In this mode, on DAY to NIGHT change over, the camera will be 'forced' to stay in colour or mono (without IR) regardless of ambient light conditions.

> ***TECH SUPPORT COMMENT:*** **In LOW LIGHT MODE setting, the camera can be programmed to auto switch to IR 'ON' MONO by using… THE IRIS KEY or A PRESET NUMBER.**
>
> ➔ LOGIN > MAIN MENU > **CAMERA SETTINGS > NIGHT SETTINGS > COLOUR/MONO**
> ➔ MOVE ▲▼ TO SELECT COLOUR OR MONO
> ➔ MOVE ◀ TO SAVE & EXIT

8.2.2 SHUTTER SPEED

The shutter speed can be slowed down to increase light sensitivity. Default setting = 1/25.

➔ LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > SHUTTER SPEED**
➔ MOVE ▲▼ TO CHANGE SHUTTER SPEED
➔ MOVE ◀ TO SAVE & EXIT

8.2.3 EXPOSURE COMPENSATION

Adjustment for unusual lighting distribution. Compensation can be either positive (additional exposure) or negative (reduced exposure). Default setting = 0.

➔ LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > EXPOSURE COMPENSATION**
➔ MOVE ▲▼ TO ADJUST EXPOSURE LEVEL BETWEEN +7 AND -7
➔ MOVE ◀ TO SAVE & EXIT

8.2.4 JOYSTICK FOCUS MODE

There are two settings AUTO focus & MANUAL focus. Default setting for NIGHT is AUTO.

➔ LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > JOYSTICK FOCUS MODE**
➔ MOVE ▲▼ TO SELECT AUTO OR MANUAL
➔ MOVE ◀ TO SAVE & EXIT

8.2.5 PRESET FOCUS MODE **(SONY MODULE)**

There are two modes: AUTO & STORED. Default setting for NIGHT is STORED.

➔ LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > PRESET FOCUS MODE**
➔ MOVE ▲▼ TO SELECT AUTO OR STORED
➔ MOVE ◀ TO SAVE & EXIT

8.2.6 ADVANCED CONFIGURATION

➔ LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > ADVANCED CONFIGURATION**

8.2.6.1 ZOOM LIMIT **(SONY MODULE)**

This can be adjusted from 10 to 100%

➔ LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > ADV CONFIG > ZOOM LIMIT**
➔ MOVE ▲▼ TO ADJUST ZOOM LIMIT BETWEEN 10% and 100%
➔ MOVE ◀ TO SAVE & EXIT

8.2.6.2 BACKLIGHT COMPENSATION

The ability of a Camera to compensate in cases where a subject with a large amount of background light would otherwise be obscured by blooming or silhouetting.

- LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > ADV CONFIG > BACKLIGHT COMPENSATION**
- MOVE ▲▼ TO SELECT ON/OFF
- MOVE ◀ TO SAVE & EXIT

8.2.6.3 IMAGE STABILISER **(SONY MODULE)**

- LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > ADV CONFIG > IMAGE STABILISER**
- MOVE ▲▼ TO SELECT ON/OFF
- MOVE ◀ TO SAVE & EXIT

8.2.6.4 WHITE BALANCE

- LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > ADV CONFIG > WHITE BALANCE**
- MOVE ▲▼ TO SELECT OUTDOOR AUTO/ATW/OUTDOOR/INDOOR/AUTO/SODIUM LAMP/SODIUM LAMP AUTO
- MOVE ◀ TO SAVE & EXIT

8.2.6.5 WIDE DYNAMIC RANGE

- LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > ADV CONFIG > WIDE DYNAMIC RANGE**
- MOVE ▲▼ TO SELECT OFF/AUTO/ON
- MOVE ◀ TO SAVE & EXIT

8.2.6.6 NOISE REDUCTION (PARKED)

- LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > ADV CONFIG > NOISE REDUCTION (PARKED)**
- MOVE ▲▼ TO ADJUST 0 to 5 (2 IS DEFAULT)
- MOVE ◀ TO SAVE & EXIT

8.2.6.7 NOISE REDUCTION (MOVING)

- LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > ADV CONFIG > NOISE REDUCTION (MOVING)**
- MOVE ▲▼ TO ADJUST 0 to 5 (0 IS DEFAULT)
- MOVE ◀ TO SAVE & EXIT

8.2.6.8 SPOT AE **(SONY MODULE)**

- LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > ADV CONFIG > SPOT AE**
- MOVE ▲▼ TO SELECT OFF/ON (ON IS DEFAULT)
- MOVE ◀ TO SAVE & EXIT

8.2.6.9 APERTURE CORRECTION **(SONY MODULE)**

- LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > ADV CONFIG > APERTURE CORRECTION**
- MOVE ▲▼ TO SELECT 1 to 16 (9 IS DEFAULT)
- MOVE ◀ TO SAVE & EXIT

8.2.6.10 GAIN LIMIT

- LOGIN > MAIN MENU > **CAMERA SETTINGS > LOW LIGHT MODE SETTINGS > ADV CONFIG > GAIN LIMIT**
- MOVE ▲▼ TO CHANGE VALUE
- MOVE ◀ TO SAVE & EXIT

8.3 IR MODE SETTINGS

8.3.1 FOCUS CORRECTION

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > FOCUS CORRECTION**
- MOVE ▲▼ TO SELECT ON OR OFF(DEFAULT)
- MOVE ◀ TO SAVE & EXIT

TECH SUPPORT COMMENT: **For typical CCTV applications it is recommended to leave the setting to default 'OFF'.**

8.3.2 SHUTTER SPEED

The shutter speed can be slowed down to increase light sensitivity. Default setting = 1/25.

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > SHUTTER SPEED**
- MOVE ▲▼ TO CHANGE SHUTTER SPEED 1/12 to AUTO
- MOVE ◀ TO SAVE & EXIT

8.3.3 EXPOSURE COMPENSATION

Adjustment for unusual lighting distribution. Compensation can be either positive (additional exposure) or negative (reduced exposure). Default setting = 0.

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > EXPOSURE COMPENSATION**
- MOVE ▲▼ TO ADJUST EXPOSURE LEVEL BETWEEN +7 AND -7
- MOVE ◀ TO SAVE & EXIT

8.3.4 JOYSTICK FOCUS MODE

There are two settings AUTO focus & MANUAL focus. Default setting for NIGHT is AUTO.

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > JOYSTICK FOCUS MODE**
- MOVE ▲▼ TO SELECT AUTO OR MANUAL
- MOVE ◀ TO SAVE & EXIT

8.3.5 PRESET FOCUS MODE **(SONY MODULE)**

There are two modes: AUTO & STORED. Default setting for NIGHT is STORED.

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > PRESET FOCUS MODE**
- MOVE ▲▼ TO SELECT AUTO OR STORED
- MOVE ◀ TO SAVE & EXIT

8.3.6 ADVANCED CONFIGURATION

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > ADVANCED CONFIGURATION**

8.3.6.1 ZOOM LIMIT **(SONY MODULE)**

This can be adjusted from 10 to 100%

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > ADV CONFIG > ZOOM LIMIT**
- MOVE ▲▼ TO ADJUST ZOOM LIMIT BETWEEN 10% and 100%
- MOVE ◀ TO SAVE & EXIT

8.3.6.2 BACKLIGHT COMPENSATION

The ability of a Camera to compensate in cases where a subject with a large amount of background light would otherwise be obscured by blooming or silhouetting.

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > ADV CONFIG > BACKLIGHT COMPENSATION**
- MOVE ▲▼ TO SELECT ON/OFF
- MOVE ◀ TO SAVE & EXIT

8.3.6.3 IMAGE STABILISER **(SONY MODULE)**

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > ADV CONFIG > IMAGE STABILISER**
- MOVE ▲▼ TO SELECT ON/OFF
- MOVE ◀ TO SAVE & EXIT

8.3.6.4 WHITE BALANCE

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > ADV CONFIG > WHITE BALANCE**
- MOVE ▲▼ TO SELECT OUTDOOR AUTO/ATW/OUTDOOR/INDOOR/AUTO/SODIUM LAMP/SODIUM LAMP AUTO
- MOVE ◀ TO SAVE & EXIT

8.3.6.5 WIDE DYNAMIC RANGE

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > ADV CONFIG > WIDE DYNAMIC RANGE**
- MOVE ▲▼ TO SELECT OFF/AUTO/ON
- MOVE ◀ TO SAVE & EXIT

8.3.6.6 NOISE REDUCTION (PARKED)

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > ADV CONFIG > NOISE REDUCTION (PARKED)**
- MOVE ▲▼ TO ADJUST 0 to 5 (0 IS DEFAULT)
- MOVE ◀ TO SAVE & EXIT

8.3.6.7 NOISE REDUCTION (MOVING)

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > ADV CONFIG > NOISE REDUCTION (MOVING)**
- MOVE ▲▼ TO ADJUST 0 to 5 (2 IS DEFAULT)
- MOVE ◀ TO SAVE & EXIT

8.3.6.8 SPOT AE **(SONY MODULE)**

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > ADV CONFIG > SPOT AE**
- MOVE ▲▼ TO SELECT OFF/ON (ON IS DEFAULT)
- MOVE ◀ TO SAVE & EXIT

8.3.6.9 APERTURE CORRECTION **(SONY MODULE)**

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > ADV CONFIG > APERTURE CORRECTION**
- MOVE ▲▼ TO SELECT 1 to 16 (9 IS DEFAULT)
- MOVE ◀ TO SAVE & EXIT

8.3.6.10 GAIN LIMIT

- LOGIN > MAIN MENU > **CAMERA SETTINGS > IR MODE SETTINGS > ADV CONFIG > GAIN LIMIT**
- MOVE ▲▼ TO CHANGE VALUE
- MOVE ◀ TO SAVE & EXIT

8.4 VIDEO GAIN

Video gain can be set from 0 to 7db to compensate for losses in long cable runs. Default setting is 2.

TECH SUPPORT COMMENT: **It is recommended to use video lift first before adding gain as this will usually give better results**

- LOGIN > MAIN MENU > **CAMERA SETTINGS > VIDEO GAIN**
- MOVE ▲▼ TO ADJUST from 0 - 7
- MOVE ◀ TO SAVE & EXIT

8.5 VIDEO LIFT

High frequency video lift can be set between 0 & 8. Default is zero.

> ***TECH SUPPORT COMMENT:*** **Technician should attempt to compensate for poor cable runs using video lift, before using video gain**

- ➔ LOGIN > MAIN MENU > **CAMERA SETTINGS > VIDEO LIFT**
- ➔ MOVE ▲▼ TO ADJUST BETWEEN 0 -8
- ➔ MOVE ◀ TO SAVE & EXIT

8.6 IRIS KEY USAGE

The iris key can be assigned to either:

- Adjust exposure compensation - brighten/darken image.
- Shutter speed - allows integration & can only be adjusted when the camera is in NIGHT mode.
- Night Mode Switching – switches between IR mode & Night Mode (Low Light Setting).

- ➔ LOGIN > MAIN MENU > **CAMERA SETTINGS > IRIS KEY USAGE**
- ➔ MOVE ▲▼ TO SELECT EXPOSURE COMPENSATION, SHUTTER SPEED, NIGHT MODE SWITCHING OR OFF
- ➔ MOVE ◀ TO SAVE & EXIT

8.7 DIGITAL ZOOM

Select digital zoom if user wants zoom beyond optical zoom limit. Default is off.

> ***TECH SUPPORT COMMENT:*** **Picture degradation may occur at high zoom**

- ➔ LOGIN > MAIN MENU > **CAMERA SETTINGS > DIGITAL ZOOM**
- ➔ MOVE ▲▼ SELECT YES/NO
- ➔ MOVE ◀ TO SAVE & EXIT

8.8 INVERT CAMERA IMAGE

> ***TECH SUPPORT COMMENT:*** **Technicians should set the Camera orientation first see 6.4.7.**
>
> **'INVERT CAMERA IMAGE' function should only be used to correct for special cases once orientation has been set otherwise it should be set to NO.**

- ➔ LOGIN > MAIN MENU > **CAMERA SETTINGS > INVERT CAMERA IMAGE**
- ➔ MOVE ▲▼ SELECT YES/NO
- ➔ MOVE ◀ TO SAVE & EXIT

8.9 MIRROR CAMERA IMAGE

This function reverses the image e.g. left to right will appear right to left.

- ➔ LOGIN > MAIN MENU > **CAMERA SETTINGS > MIRROR CAMERA IMAGE**
- ➔ MOVE ▲▼ SELECT YES/NO
- ➔ MOVE ◀ TO SAVE & EXIT

8.10 CROSS HAIR

- ➔ LOGIN > MAIN MENU > **CAMERA SETTINGS > CROSS HAIR**
- ➔ MOVE ▲▼ SELECT ON/OFF
- ➔ MOVE ◀ TO SAVE & EXIT

9 JOYSTICK & WIPER

9.1 JOYSTICK CURVE

There are three settings. The following options describe how sensitive the joystick is to small movements. Linear is most sensitive, quasi linear and non-linear allow for finer control at low speeds, ramping up with larger movements.
Quasi linear is the default.

- LOGIN > MAIN MENU > **JOYSTICK > JOYSTICK CURVE**
- MOVE ▲▼ TO SELECT QUASI LINEAR, LINEAR OR NON-LINEAR
- MOVE ◀ TO SAVE & EXIT

9.2 ZOOM RATIO

The zoom ratio affects how much the Camera slows down as you zoom in [the higher the numbers make the speed drop off more as you zoom in]. The default setting is 16.

- LOGIN > MAIN MENU > **JOYSTICK > ZOOM RATIO**
- MOVE ▲▼ 8,16,32,64
- MOVE ◀ TO SAVE & EXIT

9.3 JOYSTICK SPEED

Default setting is 60%. Use ▲▼ to increase/decrease.

- LOGIN > MAIN MENU > **JOYSTICK > JOYSTICK SPEED**
- MOVE ▲▼ INCREASE/DECREASE SPEED SETTING
- MOVE ◀ TO SAVE & EXIT

9.4 WIPER

Applies to RVX models fitted with wiper.

- LOGIN > MAIN MENU > **JOYSTICK > WIPER**
- MOVE ▲▼ INTERMITTENT WIPE (1-99) OR WIPER TIMEOUT (1-255)
- MOVE ▲▼ TO CHANGE TIME IN SECONDS: WIPE (1-99) TIMEOUT (1-255)
- MOVE ◀ TO SAVE & EXIT

9.4.1 INTERMITTENT WIPE

- LOGIN > MAIN MENU > **JOYSTICK > WIPER > INTERMITTENT WIPE**
- WIPER SHORT-CUT PRESET > TO SELECT 1–99 SECS

9.4.2 WIPER TIMEOUT

- LOGIN > MAIN MENU > **JOYSTICK > WIPER > WIPER TIMEOUT**
- WIPER SHORT-CUT PRESET > TO SELECT 1–255 MINS

9.4.3 WIPER SHORT-CUT PRESET

If the control unit does not have a dedicated wiper key function it is possible to allocate a ‘PRESET’ number to activate/deactivate the wiper.

- LOGIN > MAIN MENU > **JOYSTICK > WIPER > WIPER SHORTCUT PRESET**
- WIPER SHORT-CUT PRESET > SELECT NO PRESET/OR PRESET NUMBER BETWEEN 1-100

To activate wiper: Press preset number
To deactivate wiper: Select same preset number

9.4.4 WASH SHORTCUT PRESET

If the control unit does not have a dedicated wiper key function it is possible to allocate a ‘PRESET’ number to activate/deactivate the wiper.

- LOGIN > MAIN MENU > **JOYSTICK > JOYSTICK WIPER**
- WASH SHORT-CUT PRESET > SELECT NO PRESET/OR PRESET NUMBER BETWEEN 1-100

9.5 PAN LIMITS

Program Camera to pan only within pre-defined left and right limits. This can be useful if the Camera is mounted on the corner of a building or a wall. If presets are programmed the Camera will stay within the permitted limits, and not take the shortest route .

- LOGIN > MAIN MENU > **JOYSTICK > PAN LIMIT > SET PAN LIMITS**
- MOVE ▲▼ TO SELECT ON/OFF
- MOVE ◀ TO SAVE & EXIT

TECH SUPPORT COMMENT: **If re-setting LEFT & RIGHT PAN limits the technician should turn 'use limits' off to allow full movement**

9.5.1 SET RIGHT LIMIT

- LOGIN > MAIN MENU > **JOYSTICK > PAN LIMIT > SET RIGHT PAN LIMIT**
- PAN THE CAMERA TO THE RIGHT MOST PAN LIMIT
- PRESS SELECT OR WAIT 10 SECS FOR AUTO SET
- MOVE ◀ TO SAVE & EXIT

9.5.2 SET LEFT LIMIT

- LOGIN > MAIN MENU > **JOYSTICK > PAN LIMIT > SET LEFT PAN LIMIT**
- PAN THE CAMERA TO THE LEFT MOST PAN LIMIT
- PRESS SELECT OR WAIT 10 SECS FOR AUTO SET
- MOVE ◀ TO SAVE & EXIT

9.6 SET TILT LIMITS

Default setting is 'on'. Limits are determined by the Camera Orientation set-up see 6.4.7

All X-Series Cameras have the following viewing 'tilt' angle:

In Dome configuration (i.e. with lid): 90º to 10º above horizon.
In Ball configuration (i.e. without lid): 90º to 60º above horizon.

Default tilt setting is 'ON'. Limits are determined by the Camera orientation setup. See 6.4.7

- LOGIN > MAIN MENU > **JOYSTICK > TILT LIMIT > SET TILT**
- MOVE ▲▼ TO SELECT ON/OFF
- MOVE ◀ TO SAVE & EXIT

9.7 SHORT-CUTS

It is possible to allocate a PRESET number to activate the WIPER, WASH or NIGHT MODE SWITCHING.

- LOGIN > MAIN MENU > **JOYSTICK > SHORTCUTS**
- MOVE ▲▼ TO SELECT WIPER/WASH/NIGHTMODE SWITCHING
- MOVE ▲▼ SELECT 'NO PRESET' OR 'PRESET NUMBER' BETWEEN 1 - 100
- MOVE ◀ TO SAVE & EXIT

TECH SUPPORT COMMENT: **If a preset number is allocated to the wiper or IR lamp function, it cannot be used for a preset position. The wiper or IR function will over-ride a preset position if it shares the same preset number.**

9.8 AUXILLARY RELAY FUNCTION

If using an RVX-PSU-ALM16 or RVX-PSU-AALM16-W, the auxilliary relay can be programmed to transmit 'active' alarms only or trigger when the camera switches to IR NIGHT MODE (e.g. Switch on additional IR or WHITE LIGHTING etc.).

- LOGIN > MAIN MENU > **JOYSTICK > AUX RELAY FUN**
- MOVE ▲▼ TO SELECT OFF/ACTIVE ALARMS/ NIGHT MODE
- MOVE ◀ TO SAVE & EXIT

9.9 COMPATIBILITY MODE

Use this function if ADPRO/TELEPRECISION ABSOLUTE POSITIONING/BBV1000/1500 Control Systems are being deployed. All other systems select 'STANDARD'.

- ➔ LOGIN > MAIN MENU > **JOYSTICK > COM MODE**
- ➔ MOVE ▲▼ TO SELECT CONTROL SYSTEM/STD OR OFF
- ➔ MOVE ◀ TO SAVE & EXIT

10 PRESETS & TOURS

Presets and tours can be programmed using third party keyboard controllers, or from the Camera's own internal menu. To access presets & tours menu:

- ➔ LOGIN > MAIN MENU > **PRESETS & TOURS**

10.1 FOCUS SHIFT

TECH SUPPORT COMMENT: **Technicians will be familiar with setting up focus on a 'fixed' camera by temporarily fitting the lens with a Neutral Density (ND) filter to compensate for focus shift when the camera switches to mono. The best way to ensure optimum focus on THE REDVISION X-SERIES PTZ/Dome camera is to set 'night-time' presets when the light levels are low and the camera is in mono. If using a PTZ fitted with IR, the IR pods should be switched ON (RVX-IR versions only). The controller's 'focus near' focus far can be used to fine tune the focus manually before saving the preset. This way the camera will remember the IR focus settings at an absolute focal length for that specific preset.**

10.2 PRESET

10.2.1 SET A PRESET (USING CAMERA INTERNAL MENU)

- ➔ LOGIN > MAIN MENU > **PRESETS & TOURS > PRESETS > SET PRESETS**
- ➔ MOVE ▲▼ TO SELECT PRESET NUMBER TO BE SAVED (1 - 100)
- ➔ NUDGE JOYSTICK/ARROW right TO PRODUCE COSSHAIR
- ➔ USE PTZ CONTROL TO MOVE CAMERA INTO POSITION
- ➔ USE ENTER OR CANCEL TO QUIT OR WAIT 10 SECS FOR PRESET TO AUTO SET
- ➔ REPEAT STEPS 4 TO 6 TO SET MORE PRESETS
- ➔ MOVE ◀ TO SAVE & EXIT

10.2.2 EDIT PRESET

The default display title for a preset is p1, p2, p3 etc. TO CUSTOMISE preset titles. A preset can be edited in three ways: TITLE, NIGHT MODE SWITCHING & CLEAR PRESET

10.2.2.1 TITLE - The default preset title 'p1','p2' etc can be renamed e.g. front door:

- ➔ LOGIN > MAIN MENU > **PRESETS & TOURS > PRESETS > EDIT PRESETS**
- ➔ MOVE ▲▼ TO SELECT PRESET NUMBER TO BE EDITED
- ➔ USE ▶ TO INPUT TITLE
- ➔ USE ▲▼ TO SELECT ALPHANUMERIC CHARACTERS
- ➔ MOVE ◀ TO SAVE & EXIT

10.2.2.2 NIGHT MODE SWITCHING

A preset can be programmed to switch to a different night mode setting e.g infra red, low light colour or mono with no infrared. for example, this may be useful if the camera is set to switch to low light colour mode at night, but needs to automatically switch to ir mono in certain preset position

- ➔ LOGIN > MAIN MENU > **PRESETS & TOURS > PRESETS > EDIT PRESETS**
- ➔ MOVE ▲▼ TO SELECT NIGHT MODE
- ➔ MOVE ▲▼ TO SELECT IR MODE/LOW LIGHT MODE/AUTO
- ➔ MOVE ◀ TO SAVE & EXIT

NOTE: Auto will default to the setting selected in 'SELECT NIGHT MODE' 7.1

10.2.2.3 CLEAR PRESET – (DELETES INDIVIDUAL PRESET & CONTENT)

➔ LOGIN > MAIN MENU > **PRESETS & TOURS > PRESETS > EDIT PRESETS**
➔ MOVE ▲▼ TO SELECT PRESET NUMBER TO BE EDITED
USE ▶ TO SELECT PRESET
USE ▲▼ TO SELECT YES/NO
➔ MOVE ◀ TO SAVE & EXIT

10.2.3 PRESET SPEED

The speed at which the Camera moves to each preset can be programmed. Default is 60%. To change the value:

➔ LOGIN > MAIN MENU > **PRESETS & TOURS > PRESETS > PRESET SPEED**
➔ MOVE ▲▼ TO SELECT PRESET
➔ MOVE ▲▼ TO CHANGE VALUE (10% TO 100%)
➔ MOVE ◀ TO SAVE & EXIT

10.3 TOURS

Tour 1 by default is fully populated & includes all set presets. It is possible to program up to 100 presets per tour. Once a tour is set the Camera moves between each preset within that tour automatically, and will dwell [10.3.1.4] for a period specified. The restore tour mode [10.4.4] can be activated on any tour from 1 to 8.
The tour is continually repeated unless interrupted by:

- Manual pan, tilt or zoom
- Calling up a preset position
- An alarm activation

10.3.1 TOUR 1 TO 8

The user can set up to 8 different tours. Tour 1 by default is fully populated & includes all set presets. These can be edited if required. All other tours are empty.

➔ LOGIN > MAIN MENU > **PRESETS & TOURS > TOURS**
➔ TOUR
➔ MOVE ▲▼ TO SELECT A TOUR NUMBER 1 - 8
➔ MOVE ▲▼ TO CHANGE VALUE
➔ MOVE ◀ TO SAVE & EXIT

10.3.1.1 TOUR TITLE (HOW TO PROGRAM)

Each tour can be assigned its own title. The default title is T1, T2, T3 etc.

➔ LOGIN > MAIN MENU > **PRESETS & TOURS > TOURS > TOUR TITLES TOUR**
➔ MOVE ▶ TO INPUT TITLE
➔ MOVE ▲▼ TO SELECT A TOUR NUMBER TO BE NAMED
➔ MOVE ▲▼ TO SELECT ALPHANUMERIC CHARACTERS
➔ MOVE ◀ TO SAVE & EXIT

10.3.1.2 HOW TO INITIALISE A TOUR

➔ LOGIN > MAIN MENU > **PRESETS & TOURS > TOURS > INITIALISE TOUR**
➔ MOVE ▲▼ TO SELECT EITHER CANCEL (DOES NOTHING & LEAVES TOUR INTACT), CLEAR (REMOVES PRESETS FROM TOUR) OR SET (POPULATES THE TOUR WITH ALL SET PRESETS IN ORDER)
➔ MOVE ◀ TO SAVE & EXIT

10.3.1.3 EDIT TOUR

Allows operator to edit the standard tour sequence e.g. preset 1,2,3,
The default setting is position 1 of the tour = preset 1, and, position 2 = preset 2 etc.
The tour can be edited so that position 1 could = preset 2 for example. any positions set to 'NO preset' will be ignored when the tour is running.

TECH SUPPORT COMMENT: **Note that any positions set to empty presets will be skipped**

➔ LOGIN > MAIN MENU > **PRESETS & TOURS > TOURS > EDIT TOUR**
➔ MOVE ▲▼ TO SELECT TOUR TO BE EDITED
➔ MOVE ◀ TO SAVE & EXIT

10.3.1.4 TOUR DWELL TIME

The time the Camera dwells between each preset can be programmed between 1 & 120 seconds. Default is 8 seconds.

- ➔ LOGIN > MAIN MENU > **PRESETS & TOURS > TOURS > DWELL**
- ➔ MOVE ▲▼ TO SELECT DWELL TIME IN SECONDS
- ➔ MOVE ◀ TO SAVE & EXIT

10.3.1.5 SPEED

The speed at which the Camera moves to each preset. Programmed in seconds.

- ➔ LOGIN > MAIN MENU > **PRESETS & TOURS > TOURS > SPEED**
- ➔ MOVE ▲▼ TO SELECT SPEED IN SECONDS
- ➔ MOVE ◀ TO SAVE & EXIT

10.3.1.6 TOUR ORDER

The speed at which the Camera moves to each preset. Programmed in seconds.

- ➔ LOGIN > MAIN MENU > **PRESETS & TOURS > TOURS > TOUR ORDER**
- ➔ MOVE ▲▼ TO SELECT STANDARD (1,2,3)/PING-PONG (1,2,3,- 3,2,1) /RANDOM
- ➔ MOVE ◀ TO SAVE & EXIT

10.3.1.7 FREEZE FRAME DURING SEEK

Freezes the last preset image until Camera moves to next preset image.

- ➔ LOGIN > MAIN MENU > **PRESETS & TOURS > TOURS > FREEZE FRAME**
- ➔ MOVE ▲▼ TO SELECT FREEZE FRAME
- ➔ MOVE ◀ TO SAVE & EXIT

10.4 RESTORE (PRESETS & TOURS)

10.4.1 RESTORE TO NUMBER - EITHER TOUR NUMBER OR PRESET NUMBER

- ➔ LOGIN > MAIN MENU > **PRESETS & TOURS > RESTORE > RESTORE TO NUMBER**
- ➔ MOVE ▲▼ TO SELECT NUMBER
  (1 TO 100 IF ASSIGNING PRESET NUMBER)
  (1 TO 8 IF ASSIGNING TOUR NUMBER)
- ➔ MOVE ◀ TO SAVE & EXIT

10.4.2 TIMED RESTORE WEEKDAY

- ➔ LOGIN > MAIN MENU > **PRESETS & TOURS > RESTORE > TIMED RESTORE WEEKDAY**
- ➔ MOVE ◀ ▶ TO SELECT HOUR TIME BLOCKS*
- ➔ MOVE ▲▼ TO SELECT ENABLE (1 - 9) DISABLE (-)
- ➔ MOVE ◀ TO SAVE & EXIT

*Note: This is a global setting for Monday through Friday.

10.4.3 TIMED RESTORE WEEKEND

- ➔ LOGIN > MAIN MENU > **PRESETS & TOURS > RESTORE > TIMED RESTORE WEEKEND**
- ➔ MOVE ◀ ▶ TO SELECT HOUR TIME BLOCKS*
- ➔ MOVE ▲▼ TO SELECT ENABLE (1 - 9) DISABLE (-)
- ➔ MOVE ◀ TO SAVE & EXIT

*Note: This is a global setting for Saturday & Sunday.

10.4.4 RESTORE MODE (PRESETS & TOURS)

Use this option to make the Camera revert to a tour or preset after a specified delay period (in seconds) of inactivity (see RESTORE DELAY 10.4.5). Restore modes:

- LOGIN > MAIN MENU > **PRESETS & TOURS > RESTORE > RESTORE MODE**
- MOVE ▲▼ TO SELECT: OFF, FIXED TOUR, FIXED PRESET, TIMED TOUR, TIMED PRESET
- MOVE ◀ TO SAVE & EXIT

TECH SUPPORT COMMENT: **Can also use 'timed restore weekday/weekend' to restore. To restore to a different tour at different times see 12.4**

10.4.5 RESTORE DELAY (PRESETS & TOURS)

Time taken before presets or tours are restored. Select between 5 - 180 seconds and OFF.

- LOGIN > MAIN MENU > **PRESETS & TOURS > RESTORE DELAY**
- MOVE ▲▼ TO SELECT 'OFF'or CHANGE VALUE IN SECONDS (5 - 180)
- MOVE ◀ TO SAVE & EXIT

11 PRIVACY ZONES

Multiple privacy zones can be programmed.

TECH SUPPORT COMMENT: **Recommended privacy patch should be set 50% larger than object being masked**

11.1 SET/CLEAR MASK

- LOGIN > MAIN MENU > **PRIVACY > SET/CLEAR MASK**
- MOVE ▲▼ TO SELECT A MASK NUMBER
- MOVE ▶ TO REVEAL CROSS HAIRS
- MOVE CAMERA TO REQUIRED VIEW USING PTZ CONTROLS
- SELECT ENTER COMMAND FROM CONTROL OR WAIT 15 SECS UNTIL RED PATCH APPEARS
- MOVE ▲▼ TO SCROLL TO NEXT MASK NUMBER
- REPEAT STEPS 3 TO 5 TO CREATE NEW PRIVACY MASKS
- MOVE ◀ TO SAVE & EXIT

11.2 ZOOM THRESHOLD

- LOGIN > MAIN MENU > **PRIVACY > ZOOM THRESHOLD**
- MOVE ▲▼ 0 - 100%
- MOVE ◀ TO SAVE & EXIT

11.3 EDIT MASK

- LOGIN > MAIN MENU > **PRIVACY > EDIT MASK**
- MOVE ▲▼ TO SELECT A MASK NUMBER TO BE EDITED
- CLEAR MASK ▲▼ YES/NO
- MOVE ◀ TO SAVE & EXIT

12 ALARM HANDLING IN MENU SOFTWARE

The alarms can be mapped to any preset or tour, or to just put a message on the screen.

Within the Alarm Edit menu (12.4) use ▲▼ to select alarm number; within each alarm you can set type of action, dwell, and time-based masking for weekdays (12.4.1) & weekends (12.4.2).

The time-based masking is SECONDARY to the "Enable alarms" menu (12.1). If the alarm is not enabled, it will be completely ignored.

If an alarm is enabled, but masked, the user can then decide to set it to be "silent" or "message only" [12.4.3].

Title [12.4.6] is the title or name of the alarm (just like giving a preset or tour a title), this will be displayed on screen when the alarm activates.

ALARM ACTIONS:
"Go to preset" will go to preset *if set* and dwell on it for <dwell> seconds. Otherwise it will just display alarm title (if set) or alarm number (if not) on screen for <dwell> before moving on.

"Go to tour" will invoke the selected tour (if set) for <dwell> seconds. Otherwise it will just display alarm title (if set) alarm number (if not) on screen for <dwell> before moving on.

It is down to the user to ensure that the alarm dwell time gives sufficient time to run the tour, or as much of the tour as they require.

"Message only" will display alarm title (if set) / number (if not) on screen for <dwell> seconds before moving on.

Silent will do nothing and move on instantly.

When all alarms are cleared (12.4.9), the Camera will be pointing at wherever the last preset was, or running the last tour. This will continue until either the user moves the Camera, or the RESTORE MODE (10.4.4)[if set] kicks in.

12.1 ENABLE /DISABLE ALARMS

Alarms need to be 'enabled' in order to function correctly. This feature can also be used to disable nuisance alarms caused by faulty alarm input devices such as PIRs. The alarm default setting is 'all' alarms enabled [block].

- ➔ LOGIN > MAIN MENU > **ALARMS>ENABLE ALARMS**
- ➔ MOVE ◀ ▶ TO SELECT ALARM NUMBER 1 TO 16
- ➔ MOVE ▲▼ TO ENABLE(BLOCK) /DISABLE (CLEAR)
- ➔ MOVE ◀ TO SAVE & EXIT

12.2 ALARM OVER-RIDE

On alarm activation the Camera automatically switches to the preset view of the most current alarm. The alarm overide is the time the Camera will wait before over-riding the operator's joystick commands and moving to alarm action. The over-ride time can be set to between 1 and 20 seconds. Default is 10 seconds.

- ➔ LOGIN > MAIN MENU > **ALARMS > ALARM OVERIDE TIME**
- ➔ MOVE ▲▼ TO CHANGE VALUE 1 -20 SECS
- ➔ MOVE ◀ TO SAVE & EXIT

12.3 ALARM CYCLE TIME

The alarm cycle time programmed in seconds is the time it takes to tour the presets of still active alarms. Default is 3 seconds. This function will be ignored if alarms are connected directly to third party control equipment rather than the Redvision Alarm Module (RV-PSU-ALM16) & (RV-PSU-ALM16-W)

- ➔ LOGIN > MAIN MENU > **ALARMS > NEW ALARM CYCLE TIME**
- ➔ MOVE ▲▼ TO CHANGE VALUE 1 -20 SECS
- ➔ MOVE ◀ TO SAVE & EXIT

12.4 EDIT ALARMS

Use this menu to program how alarms are configured e.g. Create a weekday time schedule when alarms are automatically enabled or disabled and the type of action required when an alarm is enabled & subsequently activated etc. Alarm dwell (12.4.7) time can also be programmed in the menu.

➔ LOGIN > MAIN MENU > **ALARMS > EDIT ALARMS > 1-16 >**

12.4.1 ACTIVE TIME WEEKDAYS

➔ LOGIN > MAIN MENU > **ALARMS > EDIT ALARMS > 1-16 > ACTIVE TIME WEEKDAYS**
➔ MOVE ◀ ▶ TO SELECT HOUR TIME BLOCKS*
➔ MOVE ▲▼ TO SELECT ENABLE(SOLID) DISABLE (CLEAR)
➔ MOVE ◀ TO SAVE & EXIT

*Note: This is a global setting for monday through friday.

12.4.2 ACTIVE TIME WEEKENDS

➔ LOGIN > MAIN MENU > **ALARMS > EDIT ALARMS > 1-16 > ACTIVE TIME WEEKEND**
➔ MOVE ◀ ▶ TO SELECT HOUR TIME BLOCKS*
➔ MOVE ▲▼ TO SELECT ENABLE(SOLID) DISABLE (CLEAR)
➔ MOVE ◀ TO SAVE & EXIT

*Note: This is a global setting for saturday and sunday.

12.4.3 ACTION WHEN ACTIVE

➔ LOGIN > MAIN MENU > **ALARMS > EDIT ALARMS > 1-16 > ACTION WHEN ACTIVE**
➔ MOVE ▲▼ TO SELECT 'GO TO PRESET', MESSAGE ONLY, SILENT OR RUN TOUR
➔ MOVE ◀ TO SAVE & EXIT

12.4.4 ACTION NUMBER

TECH SUPPORT COMMENT: **The 'Action Number' is the number of the preset or tour to go depending on which option is selected**

➔ LOGIN > MAIN MENU > **ALARMS > EDIT ALARMS > 1-16 > ACTION NUMBER**
➔ MOVE ▲▼ TO SELECT NUMBER BETWEEN 1- 100
➔ MOVE ◀ TO SAVE & EXIT

12.4.5 ACTION WHEN MASKED

➔ LOGIN > MAIN MENU > **ALARMS > EDIT ALARMS > 1-16 > ACTION WHEN MASKED**
➔ MOVE ▲▼ TO SELECT 'GOTO MESSAGE ONLY OR SILENT
➔ MOVE ◀ TO SAVE & EXIT

12.4.6 TITLE

➔ LOGIN > MAIN MENU > **ALARMS > EDIT ALARMS > 1-16 > TITLE**
➔ MOVE ▲▼ TO SELECT ALPHNUMERIC CHARACTERS
➔ MOVE ◀ TO SAVE & EXIT

12.4.7 NEW ALARM DWELL

The Camera will move to a corresponding preset when a new alarm occurs.

On multiple alarms, presets will be called up in sequence. the dwell time (in seconds) between each alarm can be programmed. Default is 5 seconds. This function will be ignored if alarms are connected directly to third party control equipment rather than the Redvision alarm module.

TECH SUPPORT COMMENT: **See ALARM OVER-RIDE 12.2 and ALARM CYCLE TIME 12.3 - the new alarm dwell defines how long the Camera will stay on a new alarm when cycling through the active alarms list.**

- LOGIN > MAIN MENU > **ALARMS > EDIT ALARMS > 1-16 > NEW ALARM DWELL TIME**
- MOVE ▲▼ TO CHANGE VALUE BETWEEN 1 – 20 SECONDS
- MOVE ◀ TO SAVE & EXIT

12.4.8 SHOW ALARM INFO

TECH SUPPORT COMMENT: **ALSO INCLUDES NUMBER OF ACTIVATIONS WHICH COULD BE USEFUL FOR TRACKING DOWN 'CHATTERING' ALARMS**

- LOGIN > MAIN MENU > **ALARMS > EDIT ALARMS > 1-16 > SHOW ALARM INFO**
- ALARM INFO INCLUDES: ALARM NUMBER, 'ENABLED Y/N, ACTIVE Y/N, MASKED Y/N, ACTION WHEN ACTIVE, LAST ACTIVATION
- MOVE ◀ TO SAVE & EXIT

12.4.9 CLEAR COUNTERS

- LOGIN > MAIN MENU > **ALARMS > EDIT ALARMS > 1-16 > CLEAR COUNTERS**
- MOVE ▲▼ TO SELECT YES OR NO
- MOVE ◀ TO SAVE & EXIT

13 CONTACT TECHNICAL SUPPORT

Redvision Technical Support Helpline

tel: +44 (0) 1420 448 448
email: support@redvisioncctv.com
web: www.redvisioncctv.com/support

14 TECHNICAL SPECIFICATION

CAMERA

Image sensor	Sony EXview 1/4" HAD CCD (PS)		
Model	FCB-EX490E/P	FCB-EX985 E/P	FCB-EX1020/P
Optical zoom	RVX18x Optical	RVX28x Optical	RVX36x Optical
Digital zoom	12x	12x	12x
Horizontal resolution	550TVL	550TVL	550TVL
Angle of view	2.8 - 48°	2.2° – 54.2°	1.7° – 57.8°
Focal Length	4.1 to 73.8mm (F1.4 to F3)	3.5 – 91.0mm (F1.6 to F3.8)	3.5 – 91.0mm (F1.6 to F3.8)
Min illumination	0.7 1x (F1.4,50IRE)	0.25 1x(F1.35,50IRE)	1.4 1x(F1.6,50IRE)

TELEMETRY

RS485	Pelco P, Pelco D, Vista, Dennard & Bosch
Coax	BBV
Addressing	DIP switch
Baud rate	2400,4800.9600 & 19200

MECHANICAL

Left & Right Pan Limits	Programmable
Pan & Tilt	Continuous 360 Pan (0.1-200 per second). Tilt +60° to -90° depending on set up

INFRA RED ILLUMINATION (RVX-IR version)

IR wavelength	850nm (semi covert) 940nm covert wavelength available to special order
IR range	Tested to 100m (850nm)

KEY FEATURES

Presets/Tours	100 presets with programmable titles & 8 tours with programmable titles
Password protection	Yes (three levels)
Camera titles	16 alphanumeric characters
Preset titles	16 alphanumeric characters
Privacy zones	24 programmable
Alarm handling	Weekend/weekday time schedules for enabling/disabling alarms
Video launch amplifier	0-6dB 8 steps
Heater	Yes
Fan	Yes

ENVIRONMENTAL & PHYSICAL

Camera head material	Die cast aluminium
Window	Flat toughened glass
Operating temperature	-35˚C to 50˚C heater/Fan
Camera head Weight	6.5 Kilos
Paint finish	Powder coat
IP Rating	IP66

WIPER (Optionally available on all models)

Intermittent and Wiper Time Out

OPTIONAL ALARM MODULE

Features	16 Alarm inputs (volt free). 1 relay o/p fits to RV-PSU. Optional wireless card up to 16 PIRs

POWER CONSUMPTION

Input	110V to 240Vac, 50MZ
Output	24V DC @ 2A output
Power Consumption	2 Amps at 48VA

MOUNTING BRACKETS

Type	Pedestal, Swan, pedestal (tower mount) wall, corner, pendant & pole clamp

This product is CE marked and has been fully tested and complies with:

- 2004/108/eec Electromagnetic Compatibility
- 73/23/eec Low Voltage Directives
- 60950:2006 Safety Standards

WARNING: THIS IS A CLASS A PRODUCT. IF INSTALLED IN A STATIC ENVIRONMENT RADIO INTERFERENCE MAY BE CAUSED IN WHICH CASE THE USER MAY BE REQUIRED TO TAKE ADEQUATE MEASURES.

15 WARRANTY INFORMATION

Redvision CCTV Limited (Redvision) warrants the buyer that the product will, on the date of shipment be free from defects in material & workmanship and will conform to Redvision's specifications provided to the buyer. If any defect in material or workmanship appears in the product, Redvision will at its option, either repair or replace the defective product without charge at Redvision's customer service centre or serviced authorised repair facility or credit or refund the purchase price of the defective product provided;

- The defect appears within 24 months from the date of purchase by the end user
- Examination of the product confirms that the claimed defect actually exists.

Buyer shall follow Redvision's instructions regarding return of the defective product and no product will be accepted for repair, replacement, credit or refund without the written authorisation of Redvision or in accordance with Redvision's written instructions. In the case of any such return the buyer shall bear the risk of loss or damage and shall prepay all transportation charges to Redvision. Repaired or replacement product will be shipped with freight prepaid by Redvision and the buyer shall bear the risk of loss or damage. The replaced product shall become Redvision's property.

In no event shall Redvision be responsible for de-installation or reinstallation of the product or for the expenses thereof. If it is determined that product is not defective, the buyer shall pay Redvision all costs of handling, inspection, repairs and transportation at Redvision's then prevailing rates.

Repairs and replacements covered by the above warranty are warranted to be free from defects as set forth above except that the defect must appear;

- Within three (3) months from the date of repair or replacement; or
- Prior to the expiration of the above twenty four (24) month period, whichever is later.

With respect to product not manufactured by Redvision, to the extent permitted, extends the warranties and affords the remedies to the buyer given to Redvision by its vendor of said products. The foregoing warranties do not extend;

- To expendable items
- To experimental or development products
- To product which has been subjected to misuse, neglect, accident or abuse;
- To the unauthorised repair or alteration by anyone other than Redvision;
- To improper installation, storage or maintenance by anyone other than Redvision;
- To product used in material violation of Redvision's instruction; or
- To product which has had its serial numbers or month and year of manufacture or shipment removed, defaced or altered or
- To software.

The term "software" means a set of logical instructions and table of information which guide the functioning of a processor. Such set may be contained in any medium whatsoever including, without limitation, hardware containing a pattern of bits representing such set, provided, however, the term "software" does not mean or include the medium.

Redvision shall charge for the repair of all product returned out of warranty.

call Redvision Customer Service **+44 (0) 1420 448 448** for an RMA number.

or visit www.redvisioncctv.com for more information.

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X-SERIES

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